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MANAGEMENT OF THE DEPARTMENT OF DEFENSE

HEARING

BEFORE THE

COMMITTEE ON GOVERNMENTAL AFFAIRS UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

SECOND SESSION

PART 10

PRICING AND NEGOTIATION OF MAJOR NAVY SHIPBUILDING CONTRACTS

DECEMBER 5, 1984

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[1] Mr. John Landicho, Senior Associate Director, National Security and International Affairs Division, GAO, was also scheduled to appear but due to time constraints was unable to be heard. A copy of his prepared statement may be found on p. 139.

MANAGEMENT OF THE DEPARTMENT OF DEFENSE

WEDNESDAY, DECEMBER 5, 1984

U.S. SENATE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The committee met at 9:34 a.m. in room SD-342, Dirksen Senate Office Building, Hon. William V. Roth, Jr. (chairman of the committee) presiding.

Present: Senators Roth, Cohen and Levin.

OPENING STATEMENT OF SENATOR ROTH

Chairman ROTH. The committee will please be in order. We are convening today for the 10th in our series of hearings on the management of the Defense acquisition process. Today we will be concentrating on Navy programs involving the procurement and overhaul of major ships. I instructed my staff to review the procurement of three nuclear-powered aircraft carriers. I might point out that each of those are approximately $1 billion procurements. We also reviewed contracts for four nuclear-powered attack submarines and the refurbishment of the battleship *Iowa.*

The purpose of our investigation is to determine whether the Government is obtaining reasonable prices in its negotiations on major weapon contracts. I want to know whether the overpricing, which has occurred in smaller items such as spare parts, is also occurring in major weapon contracts.

I have to say that the investigation so far has not given me much confidence. The evidence which we have uncovered causes me to wonder whether many major weapon contracts are nothing more than spare parts overpricing problems writ large.

My investigators have conducted their work for roughly 4 weeks. They found approximately $800 million in contract costs on which serious questions can be raised. We have a chart which shows that this potential waste takes about every form imaginable.[1] There are serious questions as to whether or not competitive bids were pursued, and if not, why not. There are costly stretchouts, as in the case of the submarines. Questions are raised about the overpricing of naval reactors and inaccurate or outdated price quotes from the contractor for portions of the contract for all carriers from CVN-70 forward. There are questions about high profits, double payments for items, and even a potentially serious reduction of the Nation's strategic readiness because of cost overruns, quality problems, and schedule slippages in the overhaul of ballistic missile submarines.

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[1] See p. 141.

I want to explore with our witnesses today how these serious irregularities occurred, what the Navy plans to do to recoup money where feasible and, most importantly—most importantly—what is being done to prevent a recurrence of situations involving similar excesses in the future.

The fact of the matter is, the Navy came to Congress arguing that it could save money on the CVN-71 aircraft carrier by speeding up its delivery. The Navy said this would also allow it to contract for a package of two followon carriers, which it argued would result in substantial savings. The Navy stands to pay approximately $21 million for early delivery of the aircraft carrier CVN-71, yet there was strong evidence—strong evidence—before the contract for the carrier was even awarded that it could be delivered much earlier than the date the Navy and the contractor originally agreed to.

The package contract for CVN's 72 and 73 was estimated to save some $700 million. The chart on the left shows it is hard to know where these savings are coming from.[1] The bottom line is that the Navy has never changed the target costs for any of these contracts to reflect the savings, and I believe we should know where such savings realized have been deposited.

Frankly, I am also disturbed that the Congress came to GAO on at least three separate occasions and asked it to evaluate the cost, schedule, and purported savings for early delivery of these carriers. Although all the information depicted on the chart to my left was available before it issued its three reports, GAO did not inform the Congress of any of this potential waste.

I believe these ship contracts show the real value of competition in keeping costs down. The submarines, as well as the carriers, were sole-source procurements. Because they were sole source, the Navy had a serious obligation to drive the best bargain it could. Yet we found after the CVN-71 contract was awarded, a major contract modification was made on a sole-source basis which included a profit of some 46 percent of target cost—double the rate in the original contract—and added 5 months to the delivery schedule for the ship.

The information we have—maybe it could be shown to be otherwise—the documents we have obtained indicate that the contractor made little effort to negotiate seriously on this matter and did not even document why the extra 5 months was needed. Even so, the Navy agreed to the contractor's proposal.

An even more graphic example of the impact of competition can be seen on the procurement of the SSN-688 submarines. Under an original competitive bidding process, two contractors bid $490 million and $528 million, respectively, to build three subs. The Navy ultimately decided to contract for the boats on a sole-source basis and negotiated a final target price of $675 million. That is an increase—an increase—of an astonishing $185 million over the price proposed on a competitive basis.

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[1] See p. 141.

All I can say is that given our poor track record on holding down costs for negotiated procurements, competition is the only real tool—I am sure I get agreement from Bill Cohen on that—that we have to hold the line on excessive waste in military contracts.

I don't want to, at this stage, draw too many conclusions. We will have the opportunity of hearing from Navy representatives as well as GAO. I want to assure the Department of Defense, as well as the contractor, that we will give them the opportunity to comment fully on each of the questions that will be raised today.

Just let me say that I understand we have to depend in part on sole-source contracting, but I want the contractors to understand that that being the case, they have a responsibility to this Government to offer a reasonable price. They are entitled to a reasonable profit, but this is not a situation where you are dealing with "the buyer beware." I feel very strongly when you do business in this area, the contractors have a special responsibility in being cost effective and fair to the Government. We are going to be looking into this matter of the fairness of profits in the coming weeks and months.

I would like, at this time, to call on my colleague, Bill Cohen, who has been so active in this area, particularly on the need for competition.

OPENING STATEMENT OF SENATOR COHEN

Senator Cohen. Thank you very much, Mr. Chairman. I think this hearing is critically important because the disclosure of waste and, I would even say, fraudulent pricing practices threatens to undermine the support for a strong national defense in this country. I find it somewhat interesting that the President is pondering the various defense proposals at a time when he is proposing to cut aid to college students and to make changes in Medicare and Medicaid. Yet there is some hesitancy on the part of the administration to even consider touching defense spending.

The general public, I can tell you from recent experience, is quite skeptical and cynical about what is going on here in Washington. This is understandable, considering the flood tide of reports coming out of this city about abusive, wasteful, and, indeed, fraudulent practices.

So if, in fact, we are going to maintain support in this country for a strong national defense, it is not only going to take a commitment on the part of the Navy, the other services, and the Defense Department, but also, as Senator Roth has just said, an awareness on the part of the contractors that we are not going to do business as usual anymore.

I happen to believe and know that the Navy has taken some rather strong measures to introduce more and more competitive bidding in the Navy. I thought the chairman was going to recommend we turn all the shipbuilding over to the Bath Iron Works—he would have no disagreement from me. I think that is a bit parochial on my part. Nonetheless, as a result of BIW's competition for the Aegis cruiser contract, the Navy and, indeed, the country has saved millions, if not hundreds of millions of dollars, just this year.

So that is what we have to promote, more and more competition in Government contracting.

I, frankly, don't think this Congress or any Congress is in a position to exercise the kind of oversight on a day-to-day basis that is going to be able to root out all of the waste and fraudulent procurement practices. When people raise the question how can you have a $400 hammer or a $4,000 coffee pot, whatever, well, the contractor doesn't put a line item saying "coffee pot, $6,000." He doesn't put a line item saying "$114 for a 9-cent screw." They bury these costs. When you have a monopoly, it is virtually impossible for us, certainly, to determine how they have structured that pricing figure. So competition is going to be one of the major combatants against fraud and waste and abuse.

I want to commend you, Mr. Chairman, for holding this hearing to see if Congress can play a constructive role to insist upon more and more competition and less sole-source contracting.

Chairman ROTH. Thank you, Senator Cohen. At this time, we would like to call forward Mr. Robert Ross, the former procurement contracting officer and Commodore Stuart Platt, who is the former Deputy Commander for Contracts, Naval Sea Systems Command, currently the Competition Advocate General of the Navy.

Commodore Platt, welcome. We would like to start with you today.

TESTIMONY OF COMMODORE STUART PLATT, FORMER DIRECTOR OF CONTRACTS, AND DEPUTY COMMANDER, NAVAL SEA SYSTEMS COMMAND, CURRENTLY COMPETITION ADVOCATE GENERAL OF THE NAVY

Commodore PLATT. Thank you, Mr. Chairman, Senator Cohen. I am pleased to appear before this committee as the Navy's representative to discuss the shipbuilding program. I have submitted a statement for the record, and, if I may, I will now summarize some of my views on shipbuilding.

Let me first assure you that we in the Navy have made cost-sensitive management the driving principle for executing our Nation's buildup to a 600-ship Navy. Competition is being made the cornerstone of our business strategy, and it reflects a major new direction in how we do business. We have learned that competition is one of the best tools we have to obtain lower costs, improve contractor performance, and strengthen the industrial base. Mr. Chairman, you will have no problem from the Navy on supporting competition. We think what you have done strengthens our hand in achieving more competition—what Senator Cohen has done to bring about the Competition in Contracting Act can only help us obtain fairer prices for the equipment we buy for our sailors and airmen.

I know of no negotiator who is as effective as the force of competition. We are using that force throughout our shipbuilding program. More than 90 percent of our ships to be built or converted in the current 5-year plan will be procured competitively.

The Navy is confident that competition is the right business posture for our future in shipbuilding and weapons programs and we think we are setting the right stage for the future.

Also, we are using fixed-price-type contracts extensively. These contain claims prevention clauses that have benefited the Navy in minimizing cost growth and virtually eliminating the shipbuilding claims which plagued the Navy during the 1970's.

Fixed-price contracting has played an important role in procurement of our new aircraft carriers. These are the largest warships ever built. The nuclear carrier, CVN-71, the *Theodore Roosevelt,* was the first nuclear carrier of her class that was fully fixed priced at the start of ship construction, and the subsequent multiship contract for the CVN-72 and CVN-73 was also fixed price before the start of work. This is a significant breakthrough in cost control.

These contracts were the culmination of enormously detailed negotiations, and I reemphasize they were fixed priced up front to stop late, after-the-fact, claims and cost growth, which plagued the Navy previously.

The fixed pricing of these carrier contracts before the start of construction shifted substantial cost risk to the shipbuilder and for the first time limited the Government's liability in the construction of these nuclear aircraft carriers to firm ceiling amounts prior to the start of construction.

The CVN-71 contract was modified to protect ship magazines from cruise and surface missile threats. We recently discussed this modification with the office of the Navy supervisor of shipbuilding on the scene. They indicate the pricing for this modification was proper.

The initial contract for the CVN-71 provided a shorter construction period, as you mentioned. This period was shorter than that of any other nuclear carrier of the *Nimitz* class. As you know, the CVN-71 contract was modified subsequently to include an incentive for early delivery.

The amount of incentive that was used was less than recommended by the Navy consultant study referred to in committee analysis.

Progress toward the ships delivery schedule is good, as evidenced by the CVN-71's recent launching 17 months ahead of the original schedule. Net savings from early delivery, as confirmed by the General Accounting Office, is expected to total about $74 million.

The multiship contract for the CVN-72 and CVN-73 have generated cost savings to the taxpayer of about $750 million and a schedule improvement of 44 months, when compared to the traditional method of buying the two ships individually in different years.

Additional savings of $450 million occurred after the contract execution, and these savings were applied by the Congress in the recent continuing resolution to fund the MX program.

Let me turn to submarines. For the past year, the Navy has been reviewing a strategy for acquiring our remaining SSN-688 class nuclear attack submarines, which are built by Newport News and Electric Boat. Our second-sourcing efforts and tighter contracting terms have resulted in improved competitive positions at both of these shipyards. Our acquisition strategy will emphasize multiyear contracting, competition with an equal sharing of cost risk, and competitive purchases of contractor-furnished materials. These should generate savings and earlier schedules for delivery of the submarines of this class. We believe this proposal will be worthy of consideration.

The Navy has already achieved a high level of competition in shipbuilding and is working to further increase competition levels in other areas of Navy and Marine Corps procurement.

As you said, we know monopolists tend to maximize their profits and do not always minimize cost. Successful competitors, however, are compelled to carefully set the prices and features of their products and try to get that leading productivity edge that all world-class companies strive for.

Incidentally, we have found that the shipbuilders are less profitable than most other segments of the defense industry and their profits have been typically less than expected at contract award.

Chairman ROTH. Do you have figures on that?

Commodore PLATT. I have, sir.

Chairman ROTH. I would like you to submit those for the record.

Commodore PLATT. Yes.

[The information referred to follows:]

RELATIVE RETURN ON SALES OF MAJOR SHIPBUILDERS, AIRCRAFT COMPANIES, AND MISSILES/ ELECTRONICS COMPANIES IN DEFENSE MARKETS, 1979-1983

INDUSTRY SEGMENT	RETURN ON SALES IN DEFENSE MARKETS (Operating Earnings ÷ Sales) 1979	1980	1981	1982	1983	All 5 years
SHIPBUILDING	5.4%	5.7%	5.5%	5.0%	8.5%	6.2%
AIRCRAFT	7.6	7.3	9.1	9.0	9.1	8.6
MISSILES/ ELECTRONICS	5.6	7.3	8.1	8.6	8.5	7.9

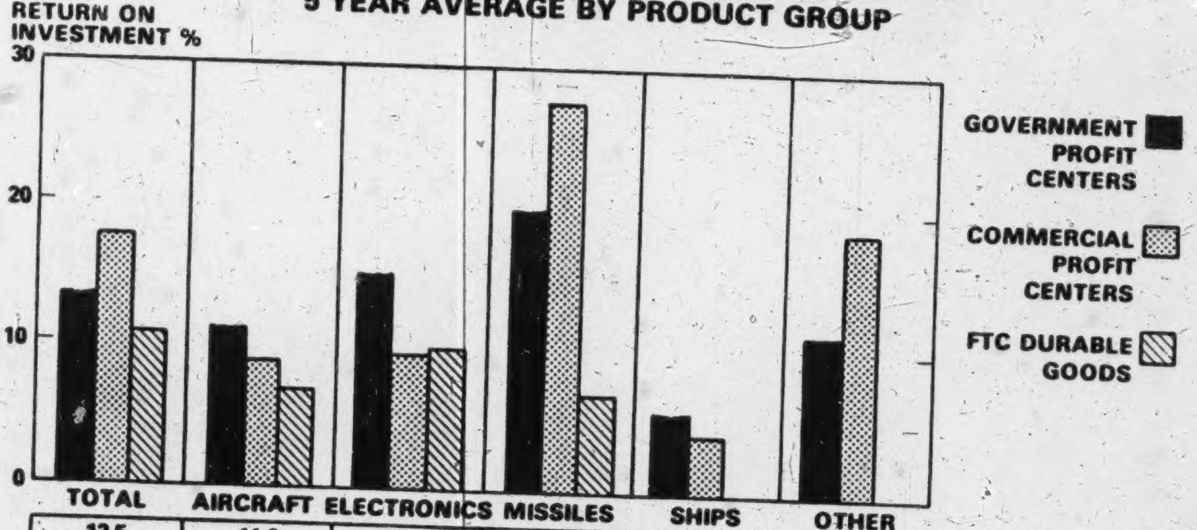
Notes

1. Shipbuilders include General Dynamics, Litton (Ingalls), Lockheed, Ogden (Avondale), Tenneco and Todd.
2. Aircraft companies include Boeing, General Dynamics, Grumman, Lockheed, McDonnell-Douglas and Rockwell.
3. Missiles/electronics companies include Boeing, Honeywell, Litton, Lockheed, RCA and Texas Instruments.

PROFITABILITY — RETURN ON INVESTMENT

PROFIT BEFORE TAXES/TOTAL ASSETS
(Less Progress and Advance Payments)

5 YEAR AVERAGE BY PRODUCT GROUP



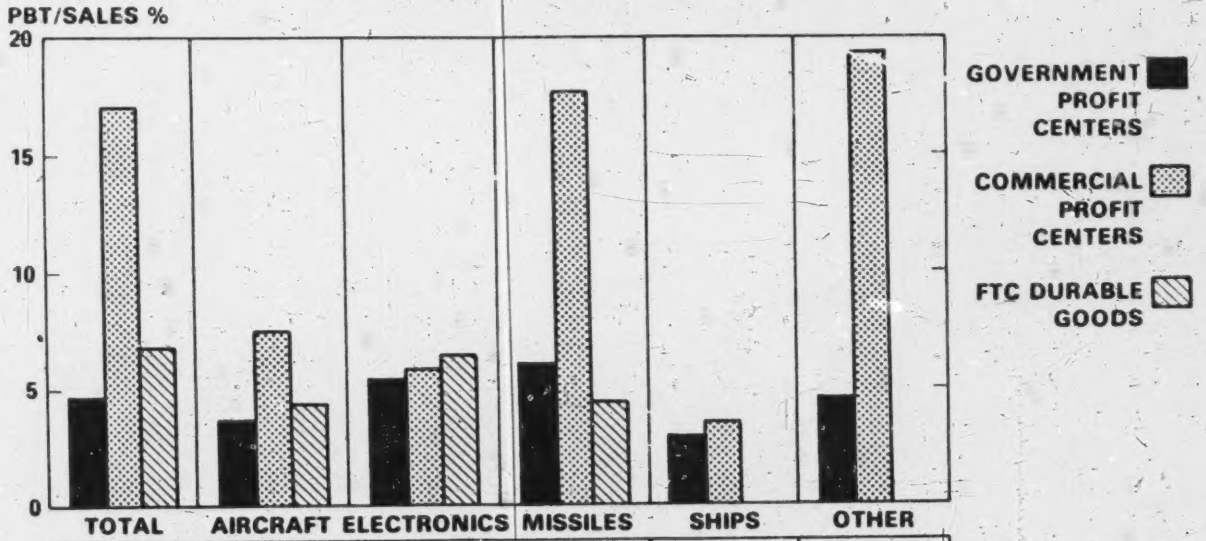
TOTAL	AIRCRAFT	ELECTRONICS	MISSILES	SHIPS	OTHER
13.5	11.2	15.3	20.0	5.8 (1.0)	11.5
17.6	9.0	9.5	27.8	4.2	18.9
10.7	6.9	10.0	6.9	—	—

NOTE: CHART COVERS THE PERIOD 1970-1974
SOURCE: DOD STUDY ENTITLED "PROFIT'76"

PROFITABILITY — RETURN ON SALES

PROFIT BEFORE TAXES/SALES

5 YEAR AVERAGE BY PRODUCT GROUP



TOTAL	AIRCRAFT	ELECTRONICS	MISSILES	SHIPS	OTHER
4.7	3.7	5.4	6.1	2.9 (.6)	4.5
17.1	7.5	5.8	17.7	3.5	19.3
6.7	4.2	6.3	4.2	—	—

NOTE: CHART COVERS THE PERIOD 1970-1974
SOURCE: DOD STUDY ENTITLED "PROFIT'76"

DELIVERED SSN 688 CLASS SHIPS

Ship	Profit ($M)	Cost ($M)	Profit Rate(%)
711	15.7	142.4	11.03
712	12.7	142.6	8.91
713	11.5	150.7	7.63
714	10.7	156.1	6.85
715	10.3	160.7	6.41
716	16.7	182.6	9.15

NOTES: Some costs remain to be accumulated and additional warranty work at builder's expense may be required. As a result, final profit rates will be lower than shown above.

Other SSN 688 Class ships which have been delivered to date fall under the 1978 Public Law 85-804 settlement with General Dynamics.

Commodore PLATT. I just have a few more comments to conclude.

The Navy has already achieved a high level of competition, and this last fiscal year we awarded $14.5 billion competitively. This is a 54-percent increase over the fiscal year 1982 amount. Over half the individual contract actions placed by the Navy last year were awarded competitively, and that compares favorably to the 30 percent in fiscal year 1982.

So you can see that the impact of the contracting acts and the pressure of Congress and the leadership of Secretary Lehman to get increased competition are paying off.

In summary, we believe the Navy is managing its weapons systems in a cost-sensitive manner. We are trying and in fact obtaining increased levels of competition. We believe that is the right way to go. Our latest example is the six shipbuilding contracts awarded last week that total about $2 billion. They were for Aegis cruisers, 688-class nuclear attack submarines, and other ships. These competitive awards saved $243 million compared to the fiscal year 1985 Presidential budget, and, as Senator Cohen said, competition brought about by that tough shipyard up in Maine has resulted in savings at both that shipyard and also at the one on the gulf coast.

These type of hearings serve several purposes: One, you should know, from our standpoint, this can only strengthen our hand in doing business with contractors; and, two, we really, sincerely feel that if there is any amount due the Navy, we will vigorously take steps to get appropriate collections; and, three, competition is certainly the cornerstone of how we plan to do our business.

Thank you. That concludes my remarks, sir. I will be glad to answer any questions, if I may.

Chairman ROTH. Commodore, I am glad you stated that the amount of contracts let by competition has increased very substantially, and I gather from what my colleague, Senator Cohen, says that is the fact, and I congratulate you for that.

Let me ask you what percentage of your contracts are let on a sole-source basis currently?

Commodore PLATT. This last year, about half the contracts were sole source; 50 percent of the total contract actions, actually 50.3 percent, were awarded competitively, and that is an increase from 2 years ago when only 30 percent were awarded competitively. That is the number of contract actions.

In terms of dollars, the percentage of dollars has gone up from about 28 percent 2 years ago to 38 percent this last year, and the Chief of Naval Material and Secretary of the Navy set a goal of 45 percent of the dollars this fiscal year to be awarded competitively.

As you know, on the shipbuilding side, we are the only service who buys ships, and we plan to have all ships, other than Trident submarines and aircraft carriers, bought competitively.

Chairman ROTH. Again, I congratulate you on the emphasis being placed on competition. The fact is, a large percentage, roughly 50 percent—is that correct—is still done on the basis of sole source?

Commodore PLATT. Yes, sir.

Chairman ROTH. So it is a very significant amount. Let me ask you, in negotiating these sole source, what guidelines does the Navy provide with respect to profits?

Commodore PLATT. The Department of Defense provides guidelines for all the services for use in negotiations, and they are called weighted guidelines. They are used in both shipbuilding and aircraft procurement. The guidelines were based on studies done some 4 to 5 years ago which looked at profit earned by all segments of the industries. At that time, shipbuilders were found to have the lowest profits of any industry and lowest return on investment of any defense industry.

I understand the Department of Defense has a review of profits of the defense sector ongoing now, and those results should be helpful to all of us looking at profit policy.

Chairman ROTH. Again, let me go back to my question. Are there any guidelines, percentagewise, as to what is looked upon as a reasonable profit? When you negotiate a contract, how do you decide what seems reasonable, as far as a profit figure is concerned?

Commodore PLATT. The guidelines provide the policy. After looking at such aspects as contractor risk, engineering, buying of materials, labor involved, and based on the type of work, a profit is determined.

For example, in shipbuilding, I think profits range somewhere between 10 to 14 percent of the total cost expected.

Chairman ROTH. Ten to 14 percent.

Commodore PLATT. Yes, sir.

Chairman ROTH. Do you have any analysis of how that compares with the commercial markets?

Commodore PLATT. In the commercial sector, I understand companies like IBM generally make about 22 or 23 percent profit nationwide on sales. I am really not the expert on that item, but I think profits normally——

Chairman ROTH [interposing]. As I understand it, there are only very general guidelines as to how you calculate profits. I don't want to get into a lot of detail today on that. That is something we are going to look into. I understand you say there is a study being made at the present time by the Department of Defense, and I would like to receive a copy of that when it is completed.

Commodore PLATT. Yes, sir.

Chairman ROTH. Are you familiar with the contracts that were let for the CVN-71, 72, and 73?

Commodore PLATT. Yes, sir.

Chairman ROTH. What kind of a contract was let for these procurements?

Commodore PLATT. For the first ship, CVN-71, the contract that was awarded was a sole-source contract to the Newport News Shipbuilding Co. and was a fixed-price incentive contract.

Chairman ROTH. Explain it for all of us so that we all will know. What do you mean by "fixed-price incentive contract"? How does that work?

Commodore PLATT. A fixed-price incentive contract is one in which we and the contractor agree in advance on a ceiling, target price, and sharing arrangement for cost under the ceiling price. The ceiling price is one which, if it is exceeded, all costs over and above that amount will be borne by the contractor. The target cost is where we want the contractor to anticipate he will perform, and any costs above that amount or below that amount will be shared in accordance with the share agreement between the contractor and the Government.

For example, in the case of a 50-50 share line and a contractor's overrun, 50 percent of the overrun costs are borne by the contractor up to ceiling and all costs after that point.

Chairman ROTH. Let me make sure I understand what you are saying. No. 1, this is a sole-source contract, so it is a question of negotiating terms with that contractor with no competition involved.

Commodore PLATT. No competition for the aircraft carriers; no, sir. There is no other company in the country at this time——

Chairman ROTH [interposing]. You set a target cost; is that correct?

Commodore PLATT. That's correct; yes, sir.

Chairman ROTH. What was that cost for, the CVN-71?

Commodore PLATT. The target cost for the CVN-71 was $950 million.

Chairman ROTH. How do you calculate the profit on that?

Commodore PLATT. The way that was calculated was, we would consider the cost incurred by the contractor, the nature of those costs, whether a cost element was material, engineering, or whatever. I believe the anticipated profit by the Navy, at least what we considered at that time, was about 12 percent—in that range.

Chairman ROTH. What was the profit figure? According to the figures I have, target cost was $950 million; target profit was $205 million; is that correct?

Commodore PLATT. I believe those are correct numbers; yes. However, the cost number you have provided is a number without escalation, but the profit number is a number with escalation in it. When you put the two numbers on a comparative basis, you have to add the escalation to that cost number which will get us to the amount I talked about; the 12-percent level.

Chairman ROTH. You figured $739 million escalation; is that correct?

Commodore PLATT. That sounds familiar, sir.

Chairman ROTH. So roughly we are talking about nearly a $2 billion contract?

Commodore PLATT. That's approximately correct.

Chairman ROTH. Are you familiar with the fact that the contract was let for a total 94 months; is that correct?

Commodore PLATT. No, sir, I think—at least the period we are referring to, the best I remember, at the time the contract was awarded, the time of start up of construction to delivery was——

Chairman ROTH [interposing]. Let me ask you a different question. There was some disagreement—why is the schedule important from the standpoint of cost?

Commodore PLATT. Eighty-four months from the start up of construction to delivery was what our schedule was at the time of award. Time of schedules is important for two reasons. One is, we are in the process of building up to a 600-ship Naval force; building a force of ships with real punch. To have the aircraft carriers delivered at the earliest possible time helps build that force.

Also, in the construction of any large project, time has impact, whether building the World's Fair or a major ship. If the work takes too long, it generally costs more.

We believe from experience, if schedules can be compressed, the cost for building the ship could be reduced.

[Commodore Platt's prepared statement and responses to written questions submitted by Chairman Roth follow: [1]]

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[1] See p. 35 for Commodore Platt's responses to written questions submitted by Chairman Roth.

STATEMENT OF

COMMODORE STUART F. PLATT, SUPPLY CORPS, U.S. NAVY

COMPETITION ADVOCATE GENERAL OF THE NAVY

BEFORE THE

SENATE COMMITTEE ON GOVERNMENTAL AFFAIRS

DECEMBER 5, 1984

Mr. Chairman and distinguished members of the committee: I am Commodore Stuart Platt, the Competition Advocate General of the Navy. I was installed in this newly created position by Secretary of the Navy John Lehman in July 1983. It is my pleasure to appear before this committee as the Navy's representative to discuss the naval shipbuilding program.

Let me start by stating that the Navy's progress toward its objective of a 600-ship force structure by 1989 is on track. The following chart lists Navy ships now under construction or being converted, which will eventually add to the roles of those ships already in active commissioned status:

NAVY SHIPS UNDER CONSTRUCTION OR CONVERSION
(OCT 1984)

SHIPTYPE	QTY	SHIPYARD
Aircraft Carrier (CVN)	3	Newport News
Guided Missile Cruiser (Aegis CG)	9	Ingalls, Bath
Amphibious Assault Ship (LHD)	1	Ingalls
Landing Ship Dock (LSD)	3	Lockheed, Avondale
Guided Missile Frigate (FFG)	12	Bath, Todd LA & Todd Seattle
Mine Countermeasures (MCM)	5	Peterson, Marinette Marine
Fleet Oiler (T-AO)	4	Avondale
Tanker (T-5)	5*	Tampa Ship
Salvage Ship (ARS)	4	Peterson
Ocean Surveillance (T-AGOS)	10	Tacoma Boat
Fleet Ballistic Missile Submarine (Ohio Class)	6	Electric Boat
Attack Submarine (Los Angeles Class)	16	Electric Boat/Newport News
Pre-positioning Ship (TAKX)	5*	General Dynamics
Pre-positioning Ship (TAKX CONV)	5*	Beth Steel (SP)/Beth Steel Beaumont/National Steel
Hospital Ship (T-AH Conv)	2	National Steel
Crane Ship (T-ACS Conv)	1	Continental Maritime SANFRAN
Battleship (BB Reactivation)	1	Long Beach Naval Shipyard
Fast Logistic Ship (T-AKRX Conv)	4	National Steel/ Penn Ship/Avondale
TOTAL	96	

*Programs managed by Military Sealift Command

Cost-sensitive management and sound judgment are the Navy's driving principles for executing the nation's naval force buildup. Competition is the cornerstone of our business strategy, as competition is the best tool we have to obtain lower costs, improved contractor performance, and a strengthened industrial base. The Navy is proceeding on a deliberate basis to introduce second production sources for major acquisition programs in order to expand the industrial base and produce real competition which will help eliminate production monopolies.

In fiscal year 1984 the Navy bought over 86 percent of its ships competitively. More than 90 percent of ships to be built or converted in this year's current five-year plan will be procured competitively; in fact, virtually every type of ship except nuclear-powered aircraft carriers and Trident ballistic missile submarines is now being competitively acquired. The Navy is confident that it has set the right business posture for the future in shipbuilding, a major segment of the Navy budget, and in shipboard weapons and equipment as well.

We have allowed more contractor participation in weapon systems design and have benefited through our expanded use of fixed price incentive contracts. All fiscal year 1984 shipbuilding contract awards were either firm fixed price or fixed price incentive with equal sharing of cost savings or cost growth up to the ceiling. Under these 50-50 shareline arrangements, which started with the SSN 721 in 1981, contractors are rewarded for under-budget performance and penalized by sharing cost growth up to the contract ceiling and bearing all cost growth over the ceiling. This business strategy is being continued.

The performance of our shipbuilders to build and deliver on schedule continues to be good. The following chart depicts the schedule performance for Navy ships delivered during fiscal year 1984; 20 of 23 ships were delivered on time or early:

DELIVERY PERFORMANCE FY 1984

	EARLY	ON TIME	LATE	TOTAL
Attack Submarine (SSN—Los Angeles Class)	1	2	1	4
Fleet Ballistic Missile Submarine (SSBN—Ohio Class)	2			2
Guided Missile Frigate (FFG)	6	1		7
Cruiser (CG)		1		1
Ocean Surveillance Ship (T-AGOS)		1	1	2
Cable Repair Ship (T-ARC)			1	1
Fast Logistic Ship T-AKR)	1	3		4
Battleship (BB)		1		1
Crane Ship (T-ACS)	1	_	_	1
TOTAL	11	9	3	23

Two examples of our overall success are our aircraft carrier and guided missile cruiser programs. The CVN 71, THEODORE ROOSEVELT, was the first CVN contract ever that was fully priced as a fixed-price type contract prior to the start of ship construction. Fixed pricing of this mammoth construction program, at its onset, was undertaken to prevent cost overruns that plagued these type programs in the past. Other CVNs were started under cost contracts and were not fixed priced until late in their construction. Therefore, the CVN 71 contract placed more risk on the shipbuilder than did earlier contracts, this at a time of double-digit inflation and severe energy concerns. The CVN 71 contract was the highest-dollar-value, longest-period-of-performance single-ship contract ever awarded by the Navy.

The shipbuilder, Newport News, anticipated at least two production workforce union contract negotiations as well as material cost increases during the period of building CVN 71. Many major equipment items, such as main propulsion equipment, are contractor furnished on CVN 71 while similar items are provided as government-furnished equipment on nuclear submarines; delivery of these critical-path items has been tight. Another risk factor was the effects of changes in federal and state laws that affect workplace conditions and thereby, total labor hours; the shipbuilder indicated that such effects are contributors to a decline in productivity, evidenced by the continual upward trend in the estimated cost-at-completion of CVN 70 as that ship was being built.

The CVN 71 contract incorporates the latest technology for protection against missile threats at sea. This protection requirement was added to the contract six months after the basic ship contract was signed, when reliable estimates and technical alternatives were available to use in making final approval decisions. The Navy has recently adjusted the contract to reduce the price by approximately $1 million; this action was taken under a provision of the modification to allow for later adjustments in the cost of steel. The CVN 71 contract was also modified to include a special incentive for early delivery of the ship, 14 months ahead of the contract delivery date. This was expected to save the government approximately $74 million. CVN 71, at 92,595 tons the largest warship ever built, was launched on October 27, 1984, ahead of the incentive schedule and a full 17 months ahead of the original schedule, which is a good signal that the progress we want is being made. The shipbuilder is working to construction schedules which maintain that 17-month advantage and could deliver CVN-71 three months before the incentive target date, which will yield even more savings to the Navy.

The FY 1983 multiship contract for CVN-72, ABRAHAM LINCOLN, and CVN-73, GEORGE WASHINGTON, reflected cost savings to the taxpayer of $750 million, with a total of 44 months early delivery and operational availability when compared with the Navy's alternate "traditional" plan, which would have funded one ship in 1984 and one in 1986. These important ships will be delivered in 1989 and 1991, bringing the Navy's inventory of aircraft carriers to 15. I point out that the savings estimates related to the early delivery of CVN 71 and the savings related to the CVN 72/CVN 73 multiship program were reviewed on several occasions at high levels within the Navy to ensure their validity. The General Accounting Office generally substantiated the estimates, including the computational methodology, and reported its findings to the Congress. The Navy is continuing to exercise every opportunity to increase the savings possible in this two-ship procurement. In fact additional savings occurred totalling $450 million. These are included in the continuing resolution as part of the funding for the MX program.

The following chart depicts the ship construction periods for our most recent CVNs:

NIMITZ CLASS AIRCRAFT CARRIER CONSTRUCTION PERIODS

SHIP	MONTHS FROM KEEL LAYING TO SHIP DELIVERY	MONTHS FROM START OF CONSTR TO SHIP DELIVERY
USS NIMITZ CVN 68	82*	90*
USS EISENHOWER CVN 69	85*	91*
USS VINSON CVN 70	78*	86*
USS ROOSEVELT CVN 71 (INCENTIVE)**	76 (62)	89 (75)
USS ABRAHAM LINCOLN CVN 72	62	83
USS GEORGE WASHINGTON CVN 73	64	107***

*actuals

**The periods in parentheses reflect the incentive early delivery period for USS ROOSEVELT. At the current stage of construction, the shipbuilder is working to reduce these periods by an additional three months. The 89 months includes a five month extension for magazine protection modifications, not made on prior ships.

***The incentive provisions for USS ROOSEVELT construction reflect a vast improvement in schedule reduction, which is continued in the two ship contract for USS ABRAHAM LINCOLN and USS GEORGE WASHINGTON. The longer start of construction to delivery period for USS GEORGE WASHINGTON results from the shipbuilder producing CVN 72/CVN 73 shipsets in series and from the constraint of an optimal period of 24 months between ship completions.

Second sourcing is well underway in our Aegis cruiser construction program. Bath Iron Works was selected as a second source to compete with Litton's Ingalls shipyard for construction of Aegis cruisers. Contracts were signed in December 1983 for the first three cruisers to be competitively awarded—two to Litton, one to Bath. The saving from the President's Budget Request in that first year of competition was $228 million. Last week contracts for three additional ships were awarded at a savings of $154.4 million from the Fiscal Year 1985 President's Budget.

program. The superlative performance of the battleship NEW JERSEY in the Mediterranean reinforced the need for early reactivation of the IOWA-class battleships. With the help of the Congress, we were able to accelerate reactivation of the IOWA, which was commissioned on 28 April 1984. IOWA was then available to replace NEW JERSEY, which completed a 325-day, 76,000-mile deployment, one of the longest peacetime deployments ever served by a Navy ship, and a tribute to the ship, her crew, and the Long Beach Naval Shipyard personnel who reactivated her. During the entire time, NEW JERSEY did not have a single dedicated upkeep period, yet she experienced no limiting propulsion or combat system casualties. The merits of the case for battleship reactivations are evident. These vessels, when fitted with modern electronic and weapon systems, are formidable fighting ships—and we can place them in active service at a much lower cost and in a much shorter time than a new construction ship of the same capability.

Speaking of battleships, Mr. Chairman, I believe you would be interested in knowing that there have been six naval warships to bear the proud name of DELAWARE, from a continental frigate to a World War I battleship. In 1833 the USS DELAWARE, a ship-of-the-line (essentially a wooden battleship), was the first United States warship to be docked in a government drydock, the Norfolk Naval Shipyard, where she hosted President Andrew Jackson on board.

The USS DELAWARE (BB-28), completed in 1910, was the first battleship to use five twin-gun turrets instead of the traditional four turrets, for a total of ten 12-inch guns. The location of the fifth turret had to be placed amidships between the boiler room and engine room, directly above the ship's magazine. This presented continual problems for the magazine ventilation system, as cooling and insulating technology were not advanced. The design problem was resolved by switching back to four turrets and starting use of three guns per turret in USS NEVADA (BB-36), built in 1914. Of course, our battleships today, with their two fore, and one aft, turrets of three 16-inch guns, and other weapons batteries, have even more firepower than ever envisioned by early U.S. Navy designers.

A few years ago, the lion's share of SSN 688 class submarine contract awards were going to the Electric Boat Division of the General Dynamics Corporation. We began to see that the lack of new submarine construction awards at Newport News Shipbuilding and Drydock Company was causing a loss of key tradesmen and skills that would ultimately result in the loss of new submarine construction capability at that yard.

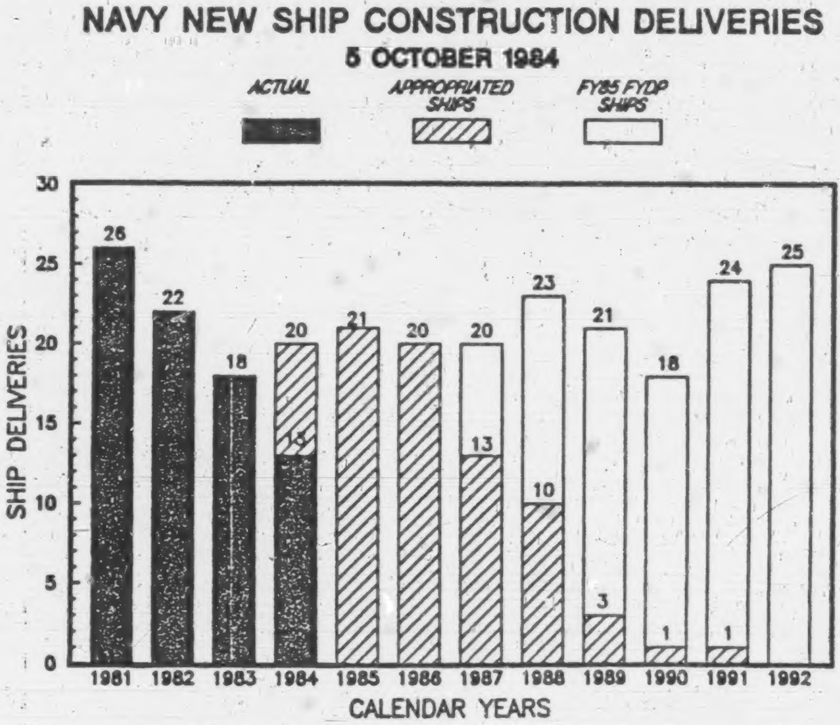
In adhering to a policy of maintaining a second source for national defense while keeping alive the specter of competition, the Navy pursued a strategy of splitting contract awards, with one yard receiving only a minimum quantity to ensure work-force stability and skill retention. There remained, however, a real incentive to drive costs down to capture the larger segment of the contract award.

With the advent of the Navy's insistence on fixed price incentive contracts, 50/50 sharelines and tighter contractual terms, the submarine construction competitive posture of Newport News improved and their loss of productivity from a vast gap in production has been overcome. Although over the last two years Electric Boat won the major contract awards, Newport News continued to make capital investments to improve their competitive position even further.

This past year, we saw a revitalized submarine construction industry. Intense competition has led both yards to achieve revolutionary breakthroughs in production technology and facilities. Improved work performance, increased capital investment and more efficient fabrication techniques are expected to substantially shorten submarine construction times.

The results: for the FY 1985 shipbuilding awards, Newport News was awarded three of the four SSN 688 class submarines being procured, at a savings of $76.2 million under the Fiscal Year 1985 President's Budget.

The following chart shows new construction ships in graphic form; it does not include the conversions and reactivations in the shipbuilding program:



Just last week—and subsequent to the chart above—Secretary Lehman announced the award of six shipbuilding contracts totalling $2.02 billion to construct ten ships; all of these contracts were awarded competitively, resulting in savings of $243 million compared with the President's Fiscal Year 1985 Budget Request for the ships. The following awards were announced: $779.5 million to Newport News for three SSN 668 class nuclear attack submarines (SSN 756, SSN 758, and SSN 759); $383.6 million to Bath Iron

Works for two CG 47 class Aegis guided missile cruisers (CG 60 and CG 62); $306.8 million to Avondale Shipyards for two LSD 41 class dock landing ships (LSD 45 and LSD 46); $283.0 million to General Dynamics' Electric Boat Division for one SSN 688 class submarine (SSN 757); $238.6 million to Litton Systems' Ingalls Shipbuilding Division for one CG 47 class Aegis cruiser (CG 62); and $27.3 million to Bell Aerospace Textron for the lead ship of the mine sweeper hunter class (MSH1).

As discussed before, the Navy has achieved a high percentage of competition in shipbuilding. We have also been working to achieve higher levels in other areas of Navy and Marine Corps procurement. Major strides have been made in competing aircraft programs, electronic systems, missiles, and other systems and equipment. The JVX advanced vertical-lift aircraft program is the first aviation program which incorporates competition throughout the acquisition. The team of Boeing and Bell will jointly conduct full-scale development, but these two contractors will then compete for the larger share of annual production quantities. Second-sourcing efforts are underway for the F404 aircraft engine, the Phoenix missile and the Standard missile. During fiscal year 1985 we will see the first head-to-head competition for the Tomahawk all-up round in the cruise missiles program. Support of the Congress for achieving competition has been most helpful.

As we expand our competition efforts, we plan to increase the use of the superb technical expertise which exists in our Navy laboratories. The laboratories' role includes validation of technical data packages to permit competitive reprocurement, reverse engineering when we are unable to obtain technical data packages at reasonable cost, and even design and development of low-cost subsystems which will then be produced competitively in the defense marketplace.

To correct the problems we have found in our spare parts acquisition process and to facilitate more spare parts competition, the Chief of Naval Material established Project BOSS (Buy Our Spares Smart). Its objective is to ensure that the Navy pays only fair and reasonable prices for spare parts, which will help us obtain the highest possible state of fleet readiness with available funds. Project BOSS incorporates over 100 initiatives designed to improve the process of buying spare parts. To support these initiatives, some 350 new billets have been allocated Navy-wide.

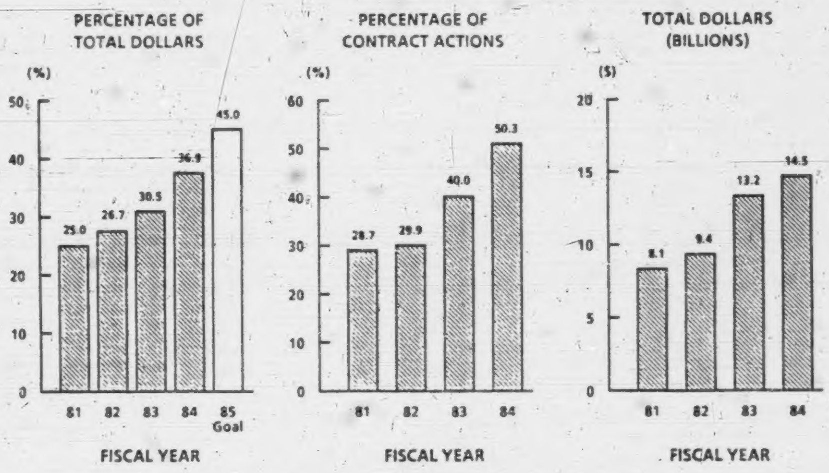
One BOSS initiative, for example, will help identify parts that should not be purchased sole source from the prime equipment supplier. This action, termed breakout, can save precious stock fund dollars, particularly when we stop buying spares from prime contractors who do not add value to parts, and we start competing requirements directly with qualified subcontractors who build such parts. Both of the Navy's inventory control points exceeded their procurement competition goals for fiscal year 1984 and together bought over one billion dollars of spare parts competitively, a 133% increase over the fiscal year 1982 amount. There is an across-the-board acceptance of responsibility for controlling Navy procurement costs—the encouraging bottom line is that BOSS is working. All this represents solid progress which will earn dividends for years to come.

The Navy is working aggressively to eliminate overspecification of items. Cutting out any goldplating which exists will not only prevent unnecessary expenditures but also save procurement costs through increased competition opportunities. The Naval Material Command plans to give this priority effort during fiscal year 1985.

Rights in technical data are often an essential element in obtaining competition. The Navy is systematically reviewing restrictions on data and challenging restrictions where appropriate. We have reached agreements with major prime contractors (for example, Litton, United Technologies, Sperry, and IBM) which eliminate or reduce restrictions on data. We are committed to do battle in instances where we find improper restrictions on data. We have defended and will continue to defend our actions in the courts if necessary.

I am pleased to report to you the Navy's final procurement competition results for fiscal year 1984: 14.5 billion dollars were awarded competitively, a 54% increase over the fiscal year 1982 amount. The percentage of dollars awarded competitively in fiscal year 1984 was 37%, and the Chief of Naval Material has set a significantly higher goal of 45% for Department of the Navy competition in fiscal year 1985. Our statistics for fiscal year 1985 through 31 October 1984 indicate that over 41% of contract dollars have been awarded competitively, so we are off to a good start. Perhaps even more impressive is that in fiscal year 1984, 50% of individual contract actions were competitive, contrasted with only 30% two years ago. The following charts graphically depict the progress the Navy has made in competition:

DEPARTMENT OF THE NAVY
PROCUREMENT COMPETITION PERFORMANCE



FY1984 COMPETITIVE PROCUREMENT STATISTICS
DEPARTMENT OF THE NAVY
(DOLLARS IN BILLIONS)

NAVY PROCUREMENT COMPETITION TOTALS	FY1982	FY1983	FY1984	% CHANGE FY1982-84
Percent of Total Direct Procurement Dollars Awarded Competitively	26.7%	30.5%	36.9%	38%
Direct Procurement Dollars Awarded Competitively	$9.4	$13.2	$14.5	54%
Percent of Individual Contract Actions Awarded Competitively	29.9%	40.0%	50.3%	68%
SPARE PARTS				
Percent of Aviation Supply Office Dollars Awarded Competitively	6.9%	9.1%	25.4%	268%
Percent of Ships Parts Control Center Dollars Awarded Competitively	29.4%	21.1%	35.2%	20%
Total Navy Spare Parts Procurement Dollars Awarded Competitively	$ .43	$ .51	$1.0	133%
CONTRACTOR SUPPORT SERVICES				
Percent of Contractor Support Services Awarded Competitively	28.9%	36.8%	47.9%	66%

Competition advocates have been appointed at all buying activities with procurement authority over $25,000; in addition, more than 150 Navy competition advocates have been designated at field activities which generate more than one million dollars in annual procurement requirements. These competition advocates, who have statutory responsibilities as a result of the Competition in Contracting Act of 1984, are people on the firing line who, in the long run, will really impact the success of our program. They provide one of the checks-and-balances which will protect the taxpayer from unreasonable prices and cost growth often associated with sole-source procurements. The following is the advice I recently gave Department of the Navy competition advocates:

- "Expect industry's continued cooperation, but be prepared if necessary to use the Navy's resources and proceed on your own to do what is necessary to achieve competition if cooperation is not forthcoming."

- "Pay particular attention to contractor support services, and pursue competition in this area with vigor."

- "Continue to press for the technical data needed to permit the second sourcing and the spare parts procurement reforms we are seeking."

- "Aggressively breakout spare parts and compete the procurements whenever possible to take advantage of the demonstrated savings. Spare parts procurement is one area where we all have our credibility on the line and we must remain strong."

- "Enforce the contractor commitments we have obtained on lifting of restrictions on data rights, use of suppliers and licensees for direct purchase, etc., and seek commitments from contractors whom we have not yet heard from."

- "Continue to emphasize early planning for competition as an essential element in a complete acquisition strategy; clearly we should look for a plan to compete in all new starts."

- "Encourage maximum possible subcontractor competition; here we need our NAVPROs, SUPSHIPSs, and other contract administering activities to lead the way."

- "Be tough-minded but fair in our dealings with industry; the taxpayers deserve no less."

- "As you seek to compete procurements, seek also to ensure quality in our weapons systems, which must be rugged, reliable and maintainable—our ships and aircraft must be able to survive in wartime or time of crisis."

In summary, we are extensively increasing the use of competition in procurement to reduce costs, improve contractor performance, and strengthen the industrial base. We have made competition a part of all new shipbuilding, aviation, and missile programs, as well as created competition through starting dual sourcing of many of our existing complex weapons systems. In short, we are using competition where it makes sense. The powerful market force of competition is bringing about very dramatic and real savings. The strong support of Secretary Lehman, the leaders in the Navy Secretariat, and the Chief of Naval Material has helped the Navy achieve the results discussed today. Their leadership and guidance have set the right stage for the Navy's future business.

The Navy has executed the shipbuilding programs approved by Congress in a way that promotes innovation, reduces costs, and shortens delivery time. The shipbuilding industry has been very creative in both technical and managerial advances. Recent years have truly been a renaissance for competition and innovation in naval shipbuilding; this era is one we plan to continue and keep on a sound business-like basis.

RESPONSES OF COMMODORE PLATT TO WRITTEN QUESTIONS SUBMITTED BY SENATOR ROTH

NEGOTIATIONS ON THE CVN-71

Senator Roth: Why did the Navy agree to a delivery schedule for the carrier months longer than three different expert consultants recommended?

Commodore Platt: The Navy contracted for a delivery schedule which was better than any prior performance by the shipbuilder for this class ship. In fact, the delivery schedule contracted for was one of the recommended levels contained in the Booz-Allen study. The construction period was twelve months shorter than a 96-month schedule proposed by the shipbuilder. The first two Nimitz Class aircraft carriers had required more than 90 months to build. CVN 70 was then under construction and eventually took 86 months to build. The Navy had concluded that a shorter construction period then was possible and had hired consultants to independently assess whether such a shorter period was feasible. In fact, the shortest possible construction period recommended by these consultants was derived by using the actual shortest construction time achieved for each major ship module for the previous ships of this class. Ideally, if the shipbuilder could equal or better this "best previous performance" throughout all portions of the construction, delivery in 74 months could thereby be attained. The 84 month period used for contract purposes was considered reasonable and equitable.

In addition, the Navy also wished to attain other contract objectives for this contract, including establishment of fixed-price provisions at the outset of the contract. This would move up the time for fixing construction costs to a significantly earlier time than had been the case for previous contracts. The Navy also introduced new contract terms and conditions which placed significant additional cost risks on the shipbuilder. The shipbuilder argued that these additional risks became unacceptable combined with a construction period any shorter than the 84-month period finally negotiated.

Senator Roth: The Committee has been informed that the contractor refused to negotiate on the schedule for delivery of the CVN-71? Is that true?

Commodore Platt: It isn't true that the contractor refused to negotiate on the schedule for delivery of the CVN-71. The contractor would not accept a delivery schedule of less than 84 months with fixed price conditions.

Senator Roth: Do you think his sole-source position with respect to carrier construction has allowed him to dictate contract conditions much more than would be the case if there were some real competition involved in carrier contracts?

Commodoer Platt: The contractor proposed a 96-month construction period. The Navy had determined, and indpendent consultants also concluded that the company could, under the most ideal circumstances, construct the CVN 71 during a construction period less than 84 months. The shortest suggested construction period of 74 months represented an ideal minimum formulated by picking and choosing the aggregate of the best performance attained under prior contracts for each major ship module. This very short period represented an extremely optimistic period of construction. Nonetheless, this shortest schedule was a goal of the Navy.

The contractor contended that it was unrealistic to expect him to match selected best or ideal performance under prior contracts for each major segment of work and insisted on a 96-month construction period. The Navy recognized that the 74-month schedule would have involved substantial risk considering the tightened cost containment clauses of the CVN 71 contract. This was the first time the Navy had been able to achieve a fixed-price type contract at the outset of the construction of a nuclear propulsion aircraft carrier. Prior contracts had begun on a cost-reimbursement basis and were subsequently converted to fixed-price incentive when most of the costs were known. In addition to this requirement to price the entire construction at the outset, the Navy terms also placed more risk on the shipbuilder through tougher cost sharing ratios in the cost incentive provisions.

After protracted discussions, agreement was reached on a construction period of 84 months for the CVN 71 while at the same time including all of the tough cost-containment provisions that the Navy had insisted upon. It is unlikely that competition would have affected the delivery schedule. The negotiated 84-month schedule was realistic. This negotiated aggressive ship construction schedule was twelve months shorter than the 96 months proposed by the contractor and was shorter than the actual construction time for any of the previous NIMITZ Class carriers as shown below:

Ship	Construction Period
USS NIMITZ, CVN 68	90 months*
USS EISENHOWER, CVN 69	91 months*
USS VINSON, CVN 70	86 months*
CVN 71 (Negotiated)	84 months

* Actuals

Senator Roth: The Navy claimed that it would save $74 million by the early delivery of CVN 71 and convinced Congress to go along with the idea. Where are those savings reflected in the budget?

Commodore Platt: The cost savings will be reflected in lower final program costs and are consistent with Navy budget requests.

Senator Roth: Did the Navy negotiate a change in the target cost of the contract to reflect the savings?

Commodore Platt: The preponderance of the $95 million gross savings estimated was for costs which are not included in target cost and which, therefore, are not subject to the cost incentive provisions of the contract. For example, escalation costs are not included in the contract target cost. Also, costs of the ship's crew, costs of the staff of the Supervisor of Shipbuilding Office, and other Navy administrative costs are not included in contract target cost. It would have been inappropriate from an incentive standpoint to reduce the contract target cost to reflect savings of these costs inasmuch as these costs were never included in target cost.

Senatore Roth: Would it be accurate to call the $74 million savings conjectural?

Commodore Platt: The $74 million was the Navy's estimate of net savings for a 14-month early delivery of the CVN 71. This estimate was considered very conservative at the time. This estimate was confirmed and concurred in by a General Accounting Office review in July 1983, some 20 months after the initial Navy estimate.

Senator Roth: Didn't the contractor tell the Navy very early in the construction of CVN-71 that he was going to be able to deliver the carrier early?

Commodore Platt: The company responded to discussion with various Navy officials through the spring of 1981 by conducting their own study of the feasibility of completing construction of CVN 71 early. The results of their study were reflected in a company letter to the Navy in June 1981 which advised that they had revised construction schedules to aim at a delivery date of September 1986. Discussion of such an early delivery date was certainly not a commitment by the shipbuilder to meet such a schedule. The contractor's notification of possible early delivery was based on severe stipulations that were unacceptable to the Navy and would prevent any formal contract schedule changes. In addition, there were significant obstacles and unpredictable factors which could interfere with such an early delivery. However, even discussion of the feasibility of an early delivery was welcomed by the Navy and was considered a critical step toward agreements which could make early delivery a realistic probability, without additional cost risk to the Navy. The Navy objective was to increase the probability of early delivery and achieve resulting cost savings without increasing the Navy's liability. By sharing in these savings through an incentive arrangement, the Navy provided the motivation for the shipbuilder to make a real commitment to early delivery, without shifting risk to the Navy.

Senator Roth: Wasn't the contractor's own projected delivery date earlier than the date the Navy paid the contractor $21 million to meet?

Commodore Platt: The incentive payment provides an additional $21.2 million only if the CVN 71 is delivered on or before December 1986. The incentive amount is reduced on a daily basis for delivery later than December 1986 and there is no incentive payment if the contractor delivers the vessel on or after the contract required delivery date in February 1988.

Senator Roth: Wasn't this $21 million payment nothing more than compensating the contractor for "foregone escalation or inflation" that he would lose in the contract if he delivered early?

Commodore Platt: The $21 million amount was designed to provide a positive incentive for the contractor to deliver the ship early, particularly since it was not clear the contractor was otherwise motivated to an earlier delivery because no other carriers were authorized by Congress at this time. There were some who thought the shipbuilder was motivated to stretch out the work.

Senator Roth: Why was this necessary since the contract supposedly already included provisions which would have given the contractor a percentage of any underruns achieved through early delivery?

Commodore Platt: Inasmuch as most of the projected savings were from costs which were never included in the contract target cost and which were not subject to the cost incentive provisions of the contract, the contractor will not share a percentage of most of the underruns. It was precisely for this reason that a delivery incentive was considered the most effective method to encourage early delivery. Furthermore, the Government also had substantial cost to bear outside the contract if the schedules were not shortened. Experience has shown that positive profit incentive has been an effective motivator for improved performance. In fact, one of the Navy's consultants, referred to in an earlier question, recommended a $55 million incentive payment for a 10-month earlier delivery as compared with the Navy position of $21 million for a 14-month earlier delivery. To the extent early delivery results in a net decrease in costs subject to the cost incentive provisions of the contract, the contractor will share a portion of the savings thereby increasing the incentive payment.

The purpose of the incentive modification was to provide sufficient motivation for the company to keep early delivery of the CVN 71 a high priority in the context of other competing considerations which may arise during the seven-year construction period. The benefits and value to the Government of early delivery will overwhelmingly outweigh any resulting incentive payments to the contractor.

Senator Roth: The Navy also told Congress that it could save some $750 million by buying the two follow on carriers to CVN 71, CVNs 72 and 73, as a package. Were these savings reflected in the target cost for these carriers?

Commodore Platt: Yes, the $750 million was reflected in an immediate, up-front reduction in the budget appropriation request and the amount appropriated for the two ships.

Senator Roth: Are they reflected somewhere in the Navy's budget?

Commodore Platt: Yes, the cost savings realized by the two-ship buy of CVN 72 and CVN 73 is substantial compared to the costs for separate procurement of the aircraft carriers in FY 84 and FY 86 as initially planned. The negotiated contract target cost and target price for the construction was consistent with the estimates used in the cost-saving budgets. The taxpayers have already saved those dollars. Because of the lower escalation costs and the early procurement of multiple ship sets of Government Furnished Equipment, the Navy also has been able to reprogram an additional $504.1 million from CVN 72 and CVN 73 to other programs.

Senator Roth: The Navy agreed to pay the contractor over $105.8 million to improve the magazine for the CVNs 71, 72 and 73 which was already included as a part of the contract. This improvement was added as a modification to the contract after construction already began.

Commodore Platt: Yes, the modification executed in March 1981 for improving the magazine Damage Protection System for CVN 71 added new work at additional cost, schedule, and performance risks to the contract. This new work was not part of the pricing of the original contract and involved three major areas of interrelated change that affect major portions of the ship's internal structure and involved application of previously untried production techniques. The change had a substantial impact on early design and engineering effort and caused a compression of the periods of design and material procurement resulting in increased design and procurement concurrency. The material handling and welding techniques had never been used in any prior shipbuilding production effort and the problems that were anticipated were not completely known. There was significant production risk and potential for major shipbuilding disruption associated with this effort since the lead time is such that installation will be continuing after launch and through the ship's outfitting period. In summary, the effect of the modification was to insert a new and untried, as well as complex, industrial installation into the middle of the major hull construction sequence. The consequence of the addition was a five-month extension of the construction period, placing the new contract delivery date in February 1988.

It would be helpful at this point to describe some of the pricing features of Navy shipbuilding contracts.

Under the fixed-price incentive contracts with Navy shipbuilders, there is negotiated at the outset a target cost which is used as a baseline to measure the company's effectiveness in controlling the cost of performing the contract. A target profit is also negotiated. If the actual cost of performing the contract is equal to the target cost, the company receives the allowable cost of performance plus the target profit. If the actual cost is less than target cost, the contractor shares in the savings, thereby increasing his profit. If the actual cost exceeds the target cost, the company shares a portion of the excess which reduces his profit. The contract also has a ceiling price which is the maximum the Navy must pay regardless of actual cost. If actual costs exceed ceiling, the contractor incurs a loss on the contract. Because the final profit is in inverse relationship to cost, the contract form provides the company, in advance, a calculable profit incentive to control costs. The calculations are based on the total cost of performing the contract and the total contract target cost, not on estimates for the many individual work efforts comprising complete performance. Thus, it is not accurate to state that the Navy agreed to pay the contractor $105.8 million to improve the magazine. The Navy agreed to pay the contractor his allowable costs under the contract plus the target profit, plus or minus the contractor's share of any underrun or overrun of contract target cost.

Senator Roth: Why was the contractor given a profit of over 46 percent to build this improved magazine?

Commodore Platt: The superficial comparison of contract target profits to contract target costs is misleading. Target costs for Navy shipbuilding contracts are expressed in deescalated dollars. For example, the target cost for the CVN 71, including the target cost of the improved magazine modification, is based on February 1979 dollars. Target profits, on the other hand, are expressed in escalated dollars and, in accordance with guidelines which are prescribed for use throughout the Department of Defense, are based on estimated total cost of performance including escalation. The correct target profit rate of the improved magazine modification, expressed as a percentage of the estimated total cost of performance, is 15.64%. It is incorrect to refer to a target profit rate of 46 percent by comparing target profit which includes escalation and target costs which do not include escalation.

Senator Roth: Why didn't the Navy get a credit for materials and time already included in the contract for the standard magazine?

Commodore Platt: A credit was made to the Navy in November 1984, by contract modification which reduced the contract target price by approximately $965,000. Other appropriate credits for deleted materials and work were considered in the contractor's proposal for the initial modification for the improved magazine.

Senator Roth: In other words, isn't it true that we paid at least twice for materials and time on the magazine for these carriers?

Commodore Platt: It is not true that the Navy paid twice for materials and labor on the magazines for these carriers. The $29.8 million increase in target cost for the improved magazine for CVN 71 was the net increase necessary for adding the additional protection to the magazine. Previously ordered steel, which could no longer be used because of the change, had not been completely identified when the modification was negotiated. It was therefore agreed that when such unused steel was identified, an appropriate credit would be made by contract modification.

For CVN 72 and CVN 73, the improved Damage Protection System was not added as a contract modification, but was included in the requirements of the basic contract.

Senator Roth: The Committee has been advised that the contractor refused to negotiate in good faith on the modified magazine and instead simply put his proposal on the table and told the Navy to take it or leave it. Is that true?

Commodore Platt: The Contractor proposed a fixed-price change for the magazine improvements, but was unwilling to reduce his proposal for a fully-priced change of this magnitude and risk. As an alternative, the Contractor had suggested use of a cost-type change order or an unpriced change order to be priced after substantial work had been completed. The Navy considered acceptance of the Contractor's fixed-price proposal to be the best approach inasmuch as the proposed cost was less than independent Navy estimates. The method of contracting used was considered reasonable and certainly preferable to opening the contract to potential late after-the-fact claims or cost growth.

Senator Roth: Is it common for contractors to attempt to confuse the Navy and make it difficult for it to understand what the contractor is proposing? The Committee has received a memorandum (attached) from a Navy pricing analyst who was told by a contractor negotiator that was the strategy Newport News always used. To quote from that memo:

"...(The company negotiator) stated that regardless of the logic or illogic of their position, the company could keep the situation so confused that the Navy would be unable to take any effective action against them. We have known for some time that a part of Newport News' strategy is to sow confusion and disorder whenever possible, but this is the first time I have ever heard a representative of the company admit such a strategy."

Please comment.

Commodore Platt: The internal memorandum, which indicated this statement was made, described a meeting of 19 November 1976. The memorandum described demands made by a Newport News employee concerning a proposed modification to the CVN 70 contract. The Government employees who were at that meeting are no longer employed by the Navy and we have not been able to reconstruct the specific circumstances of that conversation.

A review of the contract indicates that this modification was executed without the changes demanded by Newport News. Assuming the memorandum accurately describes the conversation, the Newport News employee's self-serving bluster did not prevent effective action by the Navy.

The attitude reflected in the November 1976 memorandum is not considered generally characteristic of contractors now doing business with the Navy. The Navy fully supports competition in its procurements and recognizes that sole source producers have greater business leverage in negotiations than would be the case in a competitive environment.

Senator Roth: Originally, three SSN 688 Class submarines were to have been built and the contract for the subs was to have been competed between Newport News and Electric Boat. My understanding is that the contract was finally let sole source and that four subs were to be built by Newport News. Why did the price for the subs jump substantially between the price offered under a competitive situation and the price finally arrived at under the sole source situation?

Commodore Platt: The sole source contract that was awarded to Newport News on August 13, 1981 was for the construction of the two Fiscal Year 1980 ships and one Fiscal Year 1981 ship. The contract also contained priced options for up to three additional SSNs.

The differences between the competitive Newport News proposal of March 1980 for two submarines and the eventual target cost of the negotiated contract for three (not four) submarines are principally as follows:

1. The March 1980 proposal was priced in September 1979 dollars, whereas the awarded contract was priced in September 1980 dollars. Changing the base month merely shifted some escalation costs to target cost and has no impact on final cost to the Government. This base month change increased the target cost by $45.741 million.

2. Newport News had not been awarded an SSN 688 contract since 1977. This lapse of four years in award of a ship resulted in a break in production. The optimum interval between submarine deliveries is normally six months and the March 1980 proposal was predicated on such an interval between construction of ships in progress and the first of the two submarines. The awarded contract reflected a 23-month interval, which impacted major cost elements such as labor man-hours due to loss of production continuity between ships. $14.145 million was included in the NAVSEA target cost for the break in production.

3. Additional specification requirements added after the March 1980 proposal increased the target cost by $5.902 million.

4. Increased requirements by the Occupational Safety and Health Administration increased target costs by $8.383 million.

5. Overhead and other rate changes, including changes to cost of money calculations, prescribed for use by Cost Accounting Standards, increased target cost by $34.787 million. It is likely that the preponderance of these costs would have been overrun costs under the March 1980 Newport News offer.

6. Additional non-recurring costs totaled $4.844 million.

7. A net target cost increase of $17.797 million resulted from (a) changing the construction period from 55 months to 64 months, (b) imposing new stringent anti-claims requirements of clauses such as "Drawings and Other Data", "Insurance", and "Notification of Changes", and (c) negotiation reductions. The revised insurance clause clearly made the contractor fully responsible for defective workmanship and defective materials. The following summarizes the estimated changes to target cost:

	Target Cost (millions)
NNS March 1980 Competitive Offer Extrapolated for Three Ships	$441.434
Base Month Change	45.741
Production Break	14.145
Specification Differences	5.902
OSHA Requirements	8.383
Rate and COM changes	34.787
Additional non-recurring	4.894
Delivery change, Anti-claims clauses, etc.	17.797
Other	(.583)
Target Cost of Awarded Contract	$572.500

These amounts were reviewed by Government technical and pricing specialists and are considered reasonable.

Senator Roth: The contract for the submarines was negotiated by the then Assistant Secretary of the Navy for shipbuilding, Dan Sawyer, directly with the Vice President of Newport News. Apparently, no contract personnel or pricing specialist who had been working with the contract on a daily basis and were familiar with it were present when the noegotiations took place. Is that unusual or is it a commonplace occurrence?

Commodore Platt: It is unusual.

Senator Roth: Do you know why the Assistant Secretary chose to become personally involved in these contracts?

Commodore Platt: The direct participation of the Assistant Secretary of the Navy in the negotiations came about because of unusual circumstances. Then Assistant Secretary Sawyer had not participated in direct negotiations with Newport News until August 1981, when a total impasse had developed on two issues that were elemental to the Navy's program to reform shipbuilding contract terms and conditions.

The Newport News SSN 688 contract was to be the first contract to contain industry-wide standard contract clauses that the Navy had developed to curtail shipbuilding claims. It is now standard practice to include these clauses in all Navy shipbuilding contracts.

The second issue at impasse was the contractor's share under the cost incentive provisions of the contract. The company insisted on a 23% Newport News share in contract overruns. The Navy insisted on a 50% Newport News share.

Substantial progress was made through July 1981 by the Naval Sea Systems Command negotiating team; however, the impasse over these vital issues resulted in negotiations in which Assistant Secretary Sawyer and the President of Newport News also participated. This was indicative of the seriousness of the Navy's purpose and the caution and concern of the shipyard. A tentative price agreement, subject to staff review, was reached at the meeting. Some terminology on terms and conditions and the prices for option ships also remained to be resolved by the contracting officer. As all matters were not settled, it was not clear that Newport News would not reopen other matters.

Senator Roth: Nine months was added to the originally proposed delivery schedule for these four subs and over $110 million extra was paid to the contractor to compensate him for these delays. The delivery schedules for these four subs overlap the schedule for the CVN-71. Did the Navy increase the delivery date for the submarines in order to allow the contractor to shift resources and more skilled manpower over to the aircraft carrier?

Commodore Platt: The delivery dates were changed to match the best performance achieved at that time.

We can find no basis for the statement that the contractor was paid $110 million to compensate him for delays. A detailed review of the price negotiation memoranda indicated the Navy conceded $19.5 million in target cost and $4.5 million in target profit to recognize Newport News acceptance of anti-claims clauses, acceptance of the 50% share on overruns, acceptance of the Navy's procedure for repair of nuclear Government Furnished Equipment, plus the delivery extension for three submarines. The Navy made no concession on ceiling price so the Government's maximum liability was unchanged.

Senator Roth: Did we, in effect, pay the contractor $21 million to accelerate delivery of the aircraft carrier and also pay him $110 million to delay the delivery of the four subs?

Commodore Platt: No. This is not a correct analysis of the events.

Senator Roth: The difference between the low competitive bid and the sole-source contract is $185 million. Is this the price of one SSN 688 submarine? In other words, isn't it true that the Government would have, in effect, gotten a FREE submarine if it had not gone sole source?

Commodore Platt: This is not the case. Comparing the target price of the awarded contract to the target price of the Electric Boat offer of March 1980 is very misleading. Evaluation of the March 1980 Electric Boat offer revealed that the target cost was significantly underbid. For example, construction labor effort was understated an estimated 1.4 million hours for a cost understatement of approximately $22.3 million per ship. It is likely that, had the Navy accepted the Electric Boat offer of March 1980, cost overruns would have resulted in a final cost to the Government substantially higher than the quoted amount.

Therefore, a more meaningful comparison is between the Newport News competitive offer of March 1980 and the contract awarded. This comparison is shown in the response to an earlier question. It is obvious from this comparison that Newport News would likely have also overrun their March 1980 offer. The contracts finally awarded were considered reasonable and reflect good business management.

Senator Roth: In the negotiations between Assistant Secretary Sawyer and Newport News Shipyard concerning the SSN-688 Class submarines, was the schedule for the CVN nuclear powered aircraft carriers discussed? If so, in what context?

Commodore Platt: A review of Navy documents does not indicate such discussions were held.

Senator Roth: Who oversees the Navy's shipbuilding program to ensure that construction scheduling problems do not occur and force the taxpayers to pay millions of dollars unnecessarily for delays or accelerations?

Commodore Platt: Navy construction programs are overseen at Headquarters by Project Managers and overseen by on-site Government personnel of the Navy's field contract administrative offices known as Supervisor of Shipbuilding, Conversion and Repair. Navy oversight includes identification of construction schedule issues; however, responsibility for meeting contract requirements and schedules rests with the shipbuilders.

Senator Roth: Isn't it true that the Navy must cross-deck equipment from carrier to carrier right now just to deploy a part of its carrier fleet? Please describe why cross-decking is necessary, which ships have to be cross-decked and how the shortage of manpower and materials that result in cross-decking has affected our carrier force and our SSBNs. Please be specific.

Commodore Platt: Cross-decking refers to transfer between aircraft carriers of costly aviation support equipment; this is a cost effective means of making best use of equipment and minimizing the amount of costly inventory needed to support air wings. The equipment is aircraft-specific and is assigned by the Fleet Commander to each air wing. As air wing composition changes and assignments of air wings shift, associated support equipment is moved with them. The alternative would be expensive duplication of equipment inventories and unused, idle equipment assigned to air wings when not required. Because cross decking is used effectively, the taxpayer does not have to foot the bill for equipment redundancies. The cross decking system has been able to support all our operating carriers and is expected to remain a useful and cost-saving management system.

Senator Roth: Putting aside arguments about the need for more aircraft carriers, doesn't it make sense to carefully determine when we can make use of these ships before we pay millions of dollars to speed up their delivery?

Commodore Platt: Yes. The operational demands for our aircraft carriers to meet known missions have placed exceptional burdens on the Fleet. The Navy has met all commitments and intends to continue to do so. The requirement for a 15-carrier fleet was derived from careful and thorough threat assessments. There is no doubt that these ships now under contract are needed and that they will be used immediately upon delivery. They could be effectively used right now. Moreover, the early delivery incentive provision in the CVN 71 contract will not COST the taxpayer money -- it is expected to yield a significant net savings.

Senator Roth: The Committee received a memorandum which indicates that the scheduling problems on the aircraft carriers and subs could be spilling over into other Navy programs. The memo, dated December 1983 says that the Navy program to overhaul our nuclear missile carrying subs is in serious trouble, apperently because of serious scheduling problems at Newport News. The memo (attached) cites serious quality problems which have gone on for several years and states that "long-term national strategic commitments are at stake" because of the problems. Please comment on this matter.

The Defense Department Inspector General has been asked to look into this matter because it is very serious.

Commodore Platt: Actual and projected SSBN overhaul durations at Newport News are shown in Table I. As can be seen, schedule performance has been relatively consistent throughout this period and no significant change is projected. The last four SSBN overhaul durations averaged six months longer than the contracted durations, which remains of concern to the Navy.

Many of the root causes of quality problems experienced over the past several years have been corrected. Despite these problems during overhaul, the quality of Newport News delivered SSBNs has been good. This is attributed to the extensive testing, quality checks, and auditing required to be accomplished prior to the completion of submarine overhauls.

Senator Roth: Committee staff has been informed that productivity slippages and schedule delays are beginning to affect much of the work at Newport News, not just the SSBN's. In fact, this is clearly indicated in Mr. Ross's testimony to the Committee. Do you know why this is happening? Do we have the schedules for the ships under construction beginning to interfere with each other, causing labor to be shifted rapidly from ship to ship and degrading productivity? Please provide specific data on productivity for the last four years for all ship construction and overhaul being conducted at Newport News.

Commodore Platt: Table I shows SSBN overhaul durations at Newport News for the period 1979-1986. Table II provides SSN 688 Class new construction durations at Newport News. Carrier new construction periods were shown previously.

In July 1984, Newport News reorganized the submarine overhaul workforce to report to a single Senior Vice President for Overhaul and Repair. This has brought all aspects of overhaul production into a single management team. This has served to stabilize the overhaul organization insulating it from perturbations in other sections of production at Newport News Shipbuilding.

Although there have been some delays in completion of new construction SSN 688 Class submarines at Newport News, there has been no evidence that productivity slippages and schedule delays are beginning to affect new construction progress. Newport News' record for time for construction of SSN 688 Class submarines has been very good.

SPECIFIC EXAMPLES OF EXCESSIVE COSTS

Senator Roth: The Committee has compiled a chart (enclosed) with a listing of the potentially excessive costs which we believe could have been saved on contracts for CVN's 71, 72 and 73 and four SSN 688's (hull numbers 731, 732, 733 and 750).

1. Please explain:

a. What the Navy position is on each of these potential savings;

Commodore Platt: To develop the Navy position on this question subsequent to the hearing, I reviewed relevant documentation and discussed the facts to broaden my knowledge of the events.

The Navy does not agree with the chart. Please see the attached sheets for the Navy position on each individual item.

TABLE I

ACTUAL AND PROJECTED SSBN OVERHAUL DURATIONS AT NEWPORT NEWS 1979-1986

SHIP	START	COMPL	MONTHS DURATION
SSBN 636	01/26/79	04/24/81	27
SSBN 627	08/08/79	02/09/82	30.2
SSBN 632	01/13/80	06/01/82	28.6
SSBN 633	07/01/80	12/10/82	29.3
SSBN 616	03/02/81	05/29/83	26.9
SSBN 644	07/23/81	12/13/83	28.7
SSBN 654	11/09/81	04/07/84	28.9
SSBN 655	05/03/82	08/12/84	27.4
SSBN 656	11/07/82	03/15/85*	28*
SSBN 657	02/01/83	06/21/85*	28.5*
SSBN 659	10/24/83	09/27/85*	26*
SSBN 628	05/01/84	07/09/86*	26*

*ESTIMATED

TABLE II

SSN 688 CLASS ACTUAL AND PROJECTED CONSTRUCTION DURATION AT NEWPORT NEWS 1979-1986

SHIP	START	COMPL	MONTHS DURATION
712	02/28/77	02/26/82	60.0
713	02/28/77	09/21/82	67.0
714	05/29/78	05/07/83	59.5
715	11/27/78	10/27/83	59.0
716	05/28/79	04/30/84	59.0
717	11/26/79	11/14/84	59.6
718	05/26/80	05/15/85*	59.6*
721	09/17/81	03/28/86*	54.3*
722	11/30/81	09/26/86*	58.0*
723	05/31/82	03/27/87*	58.0*
750	08/10/82	05/29/87*	57.5*
753	09/17/83	05/31/88*	56.3*
756	11/26/84	05/31/89*	54.0*
758	04/ /85*	09/30/89*	53.0*

*ESTIMATED

Senator Roth: Please explain:

b. What the Navy plans to do to recover money where possible (and when recoveries are anticipated); and

Commodore Platt: For items referring to potential defective pricing for CVN 70 and CVN 71, discussions have been in process with the shipbuilder for some time and will be completed shortly. If not resolved satisfactorily within a reasonable period, the Navy is prepared to exercise the authority under the contracts to issue a contracting officer's final decision reducing the contract value for any items under dispute. There are no other known items where recovery of funds is appropriate.

Senator Roth: Please explain:

c. Whether the Navy plans to renegotiate the contracts wherever possible to save the excessive costs noted.

Commodore Platt: The Navy has no basis for, and is not considering, reopening these contracts at this time. The costs under these contracts are believed correct and they reflect sound technical, financial, and business judgements. The contractor's strong position is that no refunds are due the Government.

Senator Roth: One of the examples cited is from a very recent Defense Inspector General report on the SSN 688 submarines. That report shows that the contractor was allowed to use his own higher, escalation rates to escalate the contract forward to its completion date and then used the Navy's lower escalation rates to escalate back to a target cost for the contract. This gave him what the IG termed "excessive profits" totaling a potential $7 million and again quoting from the IG report "transferred all the risk on the contract to the Navy". Why did this happen and what will be done to ensure that the contractor receives a fair but not excessive profit on the contract?

Commodore Platt: A reply to the Inspector General's report has been made. The Navy did not rely on Newport News' labor cost projections, as the report claimed, but relied instead on the Defense Contract Audit Agency's recommended labor rates for its labor projections. The target cost and target profit were calculated in accordance with the guidelines of the Defense Acquisition Regulation and the Ship Acquisition Policy Manual. According to Navy experts, use of the pricing method recommended by the Inspector General would result in erroneously priced contracts and would likely violate the Cost Accounting Standards. Attached is a copy of the Navy's response to the Inspector General's report.

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20350-1000

NOV 09 1984

MEMORANDUM FOR THE DEPARTMENT OF DEFENSE ASSISTANT INSPECTOR GENERAL FOR AUDITING

Subj: AIG(A) FINAL AUDIT REPORT NO. 85-003, "ACQUISITION OF SSN 688 NUCLEAR ATTACK SUBMARINES," OCTOBER 12, 1984 (PROJECT #3MC-103)

Encl: (1) Navy Comments on Subject Report

In response to your memorandum of 12 October 1984, we have reviewed your final report. Our specific comments are provided in enclosure (1). We do not concur with the audit finding on price adjustment clauses and escalation indices. NAVSEA based its labor cost projections on the Defense Contract Audit Agency recommended rates, and the target cost and profit were calculated in accordance with the Defense Acquisition Regulation Guidelines and the NAVSEA Ship Acquisition Policy Manual.

We agree that multiyear procurement should be considered for the SSN 688 program. A review of alternative acquisition strategies, including multiyear, is in process. We will complete our detailed strategy in early 1985 in time for consideration in next year's budget.

I would also like to apologize for the Navy review system's lack of response to your initial drafts. The report was not on the Navy's list of outstanding correspondence and consequently never came to my attention. Once you noted that we had not been responsive, a phone call from you or your action officer would have cleared the air, but this never happened.

EVERETT PYATT
ASSISTANT SECRETARY OF THE NAVY
(SHIPBUILDING AND LOGISTICS)

Bl copy to:
ASTSECNAV(S&L)
ASTSECNAV(FM)
COMNAVSEASYSCOM (SEA-01H) (SEA-02)
CNO
NAVMATCOM (MAT-01FC)
CMC (FDR)
NAVINSGEN
AUDGENAV

Department of the Navy Response
on
Assistant Inspector General for Audit Final Report
on
Acquisition of SSN 688 Nuclear Attack Submarine
Report No. 85-003

A. Summary of AIG(A) Findings and DON Response

The specific AIG(A) audit objectives were to evaluate whether the SSN 688 acquisition strategy resulted in the best possible prices and to determine the validity and applicability of labor and material escalation indices to ensure that contractors are being paid only fair and reasonable prices.

The results of the audit indicate that under the current constraints of annual contracting and the necessity of maintaining two viable sources, the acquisition of SSN 688 submarines has been generally satisfactory. However, (1) improvements need to be made in the use of price adjustment clauses and escalation indices and (2) multiyear procurement needs to be considered.

AIG(A) Finding 1 - Improvements need to be made in the use of price adjustment clauses and escalation indices.

The Naval Sea Systems Command (NAVSEASYSCOM) accepted Newport News Shipbuilding and Drydock Company's (Newport News Company's) projection of $21 million in labor costs, which differed from official Navy index projections, in its calculations of profit on the SSN 688 submarines. In addition, NAVSEA allowed for Newport News Company to include $8.5 million in the base cost for out-year escalation. The NAVSEA Ship Acquisition Policy Manual states that reimbursements for escalation should be under the economic price adjustment clause. According to the post-negotiation documentation, NAVSEA accepted the Newport News Company's projections because the Newport News Company claimed it would have difficult labor negotiations in 1983. As a result, the Newport News Company's risks have been minimized, and it could receive additional profits of $6.9 million.

DON Comments. The Navy does not concur. NAVSEA based its labor cost projections on DCAA recommended rates - not NNS projections. NAVSEA did not accept the NNS projections. The NAVSEA negotiated target profit and target cost were calculated in accordance with prescribed guidelines set forth in the Defense Acquisition Regulations and the NAVSEA Ship Acquisition Policy Manual. The AIG(A) statements concerning escalation are based on an apparent misunderstanding of the operation of the economic price adjustment clause and an apparent misunderstanding of the consequences of adopting the AIG(A) recommendations. Detailed comments are attached as Tab A.

AIG(A) Finding 2 - Multiyear procurement needs to be considered.

NAVSEA has not performed a study to determine the potential savings of applying multiyear procurement to the SSN 688 program even though it meets all congressional and DOD criteria. Responsible NAVSEA personnel stated that such a study would not be productive because Congress would probably not approve multiyear procurement for such a high-cost program. Since SSN 688 project costs programmed in the Five-Year Defense Plan total over $14.8 billion, the potential exists for substantial savings.

DON Comments. The Navy concurs in part. The Secretary of the Navy directed a study of multiyear acquisition approaches that would maintain the current competitive submarine construction base. Initial findings by the program manager indicated a low rate of savings as compared to annual procurement. The Chief of Naval Material is directing another study of alternative acquisition strategies. We believe that an acquisition strategy that permits the earliest possible delivery of Government Furnished Equipment (GFE) and Contractor Furnished Equipment (CFE) to the shipyards will result in the earliest ship deliveries and minimum cost through the remainder of the SSN 688 Program. Both multiyear and firm/option approaches are under consideration. A detailed acquisition strategy will be completed in early 1985.

B. AIG(A) Recommendations and Navy Comments

We recommend that the Naval Sea Systems Command should:

1. Revise its policy to require that shipbuilders escalate and de-escalate labor costs using official Naval Sea Systems Command labor index projections.

2. Obtain a written agreement with the Newport News Shipbuilding and Drydock Company to the effect that unearned profits will be credited to the Government at contract completion.

DON Comments on Recommendations 1 and 2. Do not concur. The recommendations are based on an apparent misunderstanding of the operation of the NAVSEA economic price adjustment clause and contract pricing. Extensive comments on the economic price adjustment clause and contract pricing are attached as Tab A.

3. We recommend that the Naval Sea Systems Command determine potential savings in multiyear procurement for the SSN 688 program.

DON Comments. Concur in part. As stated above, a study of alternative acquisition strategies that would minimize the acquisition cost of the SSN 688 Class submarines is in process. A course of action has been approved and a detailed acquisition strategy will be completed in early 1985.

DEPARTMENT OF THE NAVY ADDITIONAL COMMENTS ON FINDING #1

A. Introduction

The report of the Office of the Assistant Inspector General for Auditing (AIG) on the Acquisition of SSN 688 Class Nuclear Attack Submarines focuses on one contract. This fixed price incentive contract is Contract N00024-81-C-2075 with Newport News Shipbuilding and Dry Dock Company (NNS) for the construction of three FY 80/81 SSN 688 Class submarines, namely SSN's 721-723. The contract was awarded 13 August 1981.

B. Escalation Projections

NAVSEA Shipbuilding Escalation Provisions

There are many factors which influence final costs of a unit of labor or a unit of material under a Navy shipbuilding contract. Some are

- Expanding or contracting work backlog of the shipbuilder.
- Current union contracts.
- Militancy of the labor unions.
- Competition of other shipbuilders or other industries.
- Purchasing power of the shipbuilding industry's dollar.
- Competition at the subcontract level.

The purpose of the escalation provisions under NAVSEA shipbuilding contracts is to equitably share the risk between the shipbuilder and the Navy for one factor over which the shipbuilder has no control - the purchasing power of the shipbuilding industry's dollar.

The escalations provisions are not intended to, and if properly designed, do not

- Relieve the contractor of risks in forecasting his direct labor and overhead rates.
- Relieve the contractor of risks in estimating required labor hours, material costs, or other direct requirements.
- Provide a forecast of costs to be incurred.
- Provide a forecast of escalation unique to a particular contractor.
- Determine escalation costs on an item-by-item basis.

The only purpose of the provisions is to mitigate risks resulting from changes in the purchasing power of the shipbuilding industry's dollar. A fundamental error of the AIG report is that it assumes that the national indices used in structuring NAVSEA's escalation provisions should be used to calculate labor rate changes unique to a particular contractor. This error leads the AIG report to conclude that NAVSEA pricing policies are not consistent with the NAVSEA Ship Acquisition Policy Manual. This is incorrect.

The provisions are used in FPI contracts when

(i) there will be an extended period of performance with significant costs to be incurred beyond one year after commencement of contract performance,

(ii) the contract amount subject to adjustment is substantial, and

(iii) the economic variables for labor and material are determined to be too unstable to reflect a reasonable division of risk between the parties absent economic price adjustment provisions.

How Shipbuilding Contract Prices are Structured

For purposes of negotiating and paying costs for shipbuilding contracts, costs fall into two major categories.

- Costs which arise (or are avoided) because of changes (from a defined baseline) in the purchasing power of the shipbuilding industry's dollar. (EPA costs).
- All other costs. (Note that this category may, and usually does, include escalation costs which arise because of unique circumstances affecting a particular shipbuilder).

Under shipbuilding contracts, the first category of costs is priced and paid on a cost reimbursement basis and is not subject to the cost incentive provisions, or fixed price, of the contract. It is NAVSEA's position that appropriate risks for all other costs (even including escalation costs arising from circumstances unique to the individual shipbuilder) should be passed to the contractor under the contract cost sharing provisions.

The cost changes defined in the first category are estimated using certain cost indices which are clearly defined in the contract. The cost indices used in NAVSEA contracts are shown below.

Labor - Bureau of Labor Statistics Indices of Straight-Time Average Hourly Earnings for Selected Shipyards for Steel Vessel Construction All Regions (September 1980=100)

Material - Bureau of Labor Statistics Material Index for Steel Vessel Contracts (1967=100)

Iron and Steel (BLS Code 101) - 45%
Gen. Purpose Machine (BLS Code 114) - 40%
Elec. Machinery & Equip. (BLS Code 117) - 15%

Overhead - Same as Labor

Benefits - Average Cost per Labor Hour for

(1) F.I.C.A.
(2) State Unemployment Compensation Tax
(3) Federal Unemployment Compensation Tax
(4) Worker' Compensation (Premiums and Claims)
(5) Disability Insurance Premiums

Energy - Varies by Shipbuilder but can include

(1) Electricity - Regional Index
(2) Fuel Oil - Actual Cost
(3) Coke - BLS Code 052
(4) Coal - BLS Code 051

Formulae for Calculating EPA Costs

Simplified, EPA costs are calculated by the formulae

$$\text{Predicated EPA Costs} = (\text{Predicted Costs})\left(1 - \frac{\text{Base Index}}{\text{Predicted Index}}\right)$$

$$\text{Actual EPA Costs} = (\text{Actual Costs})\left(1 - \frac{\text{Base Index}}{\text{Actual Index}}\right)$$

The calculations are actually performed in three, or more, increments treating direct labor, overhead, materials, etc.

An Example

To clarify some of the confusion surrounding this subject, an example of how NAVSEA prices its shipbuilding contracts will be helpful. To simplify this presentation, only direct labor costs will be shown. The finding of the AIG report deals only with direct labor costs.

The first step in pricing the contract is to estimate the total cost required to perform the contract. This usually involves estimating the direct labor hours required to perform the work and forecasting the direct labor cost per hour to procure the hours of labor. There are many factors which influence the per-hour cost of direct labor, such as, an expanding or contracting backlog of work (if a contractor is laying off employees with lower-than-average wages, the direct labor rate will increase even if wages of individual workers are constant), union contracts, local labor market, and the general state of the economy or industry.

Estimate of Total Costs

Year	Predicted Hours	Predicted Rate	Predicted Costs
Base	-	7.00	-
B+1	10,000	7.70	77,000
B+2	20,000	8.09	161,800
B+3	10,000	9.06	90,600
	40,000	8.24	329,400

The next step in pricing the contract is to forecast the portion of predicted costs which is likely to be paid on a cost reimbursement basis using the predicted EPA Costs formula shown above.

The Base Index is usually the monthly index most recently published at the time proposals are requested.

(The AIG report would lead one to believe that NAVSEA is the only source for forecasts of BLS shipyard labor. This is not correct; there are several sources. The forecasts provided by Data Resources, Inc. are more widely used throughout the shipbuilding industry than the NAVSEA forecasts. Several shipbuilders develop their own forecasts. The fact that there are several widely-accepted forecasts for the shipbuilding index would likely make unworkable the AIG recommendation that NAVSEA require use of the NAVSEA forecasts in pricing contracts. If the AIG recommendation was implemented, contractors would likely insist that contracts contain provisions which permit repricing when actual indices vary from the NAVSEA forecasts.)

Estimate of EPA Cost Recovery

Year	Predicted Costs	Predicted Index	$1-\frac{IB}{IP}$	Predicted EPA Cost Recovery
Base	-	100.0	-	-
B+1	77,000	107.0	.0654	5,037
B+2	161,000	117.7	.1504	24,332
B+3	90,400	123.6	.1909	17,299
	329,400	116.5	.1417	46,668

The next step is to calculate the Predicted Base Costs (the Target Cost in a fixed price incentive contract) by subtracting from Total Predicted Costs the estimated costs to be recovered under the EPA provisions.

Estimate of Base Costs

Year	Predicted Costs	Subtract Predicted EPA Cost Recovery	= Predicted Base Costs
B+1	77,000	5,037	71,963
B+2	161,000	24,332	137,963
B+3	90,600	17,299	73,301
	329,400	46,668	282,732

During contract performance actual EPA costs are determined using the second formula shown above. The structure of this formula is identical to the formula used in predicting EPA costs. Thus, there is a consistency between the way the NAVSEA shipbuilding contracts are priced and the way they are costed. The AIG report recommends that the contracts be priced in a manner inconsistent with the way they are costed. (The recovery of actual costs was discussed in detail with the AIG reviewers, was not discussed in the AIG report, and will not be discussed in this response as there is apparently no disagreement in this area).

SSN 688 Negotiations

To properly explain the NAVSEA position in this matter, it is necessary to examine some details of the NNS SSN 688 proposal and the various Defense Contract Audit Agency (DCAA) and NAVSEA evaluations. The discussion will be limited to production labor, which represents approximately 80% of all labor under the contract, although the observations and conclusions discussed below apply to other categories of labor.

The following is a summary of the NNS initial estimate of predicted costs. The Newport News production labor rate was based on the March 1981 average departmental rates for ship construction, weighted for projected departmental labor mix for this contract. The projected rate includes pay increases of nine percent in August 1981, seven and one-half percent in October 1982, thirteen percent in November 1983, and ten percent each November thereafter for hourly employees and labor rate growth for salaried personnel based on annual increases of ten percent, spread evenly over each annual period. The projected rate also includes growth for a forecast employment decline and rate progression resulting from changes in skill levels of one and two-thirds percent in 1981 and one percent for 1982 through 1985, spread evenly over each annual period.

Thus, the estimate is tailored to reflect those circumstance (union contract, business base, etc.) unique to NNS.

NNS Initial Proposal
SSN 688
Production Labor

Period	Predicted Hours	Predicted Rate	Predicted Direct Costs
II 81	3,384	$7.399	$25,036
III 81	19,546	7.852	145,619
IV 81	54,639	8.100	442,576
I 82	85,034	8.137	691,925
II 82	136,822	8.172	1,118,101
III 82	280,907	8.207	2,305,408
IV 82	375,906	8.809	3,311,349
I 83	566,854	8.846	5,014,391
II 83	701,561	8.884	6,232,666
III 83	989,287	8.922	8,826,423
IV 83	1,156,799	9.673	11,189,720
I 84	1,279,906	10.071	12,889,935
II 84	1,448,437	10.115	14,650,944
III 84	1,489,314	10.158	15,128,458
IV 84	1,575,026	10.826	17,051,234
I 85	1,409,407	11.184	15,762,806
II 85	1,365,905	11.232	15,341,849
III 85	1,119,336	11.280	12,626,120
IV 85	911,207	12.022	10,954,765
I 86	623,190	12.402	7,728,809
II 86	457,598	12.426	5,686,102
III 86	247,953	12.451	3,087,269
IV 86	165,661	13.241	2,193,516
Total	16,462,699	$10.472	$172,405,021

DCAA reviewed the NNS estimates and provided recommendations to NAVSEA. (The NAVSEA position was virtually identical to the DCAA recommendation. The difference between the positions with regard to labor rates totaled approximately $827,000, including applicable overheads and concessions made by NAVSEA during negotiations. The AIG report is wrong in its statements that NAVSEA accepted NNS projections.)

The DCAA recommended production labor rate was based on the April 1981 average departmental rates for ship construction weighted for projected departmental labor mix for this contract. The projected rate reflected the then-current union agreement which extended through October 1983 and included hourly increases of $.55 in August 1981, $.10 in March 1982, $.50 in October 1982, $.10 in April 1983, and the NAVSEA forecast of the BLS labor index for each subsequent year for hourly employees. The projected rate also included growth for salaried employees based on the NAVSEA forecast of the BLS labor index, spread evenly over the periods. The projected rate included growth for employment decline and automatic rate progression, as proposed by the contractor.

DCAA Recommended
SSN 688
Production Labor

Period	Predicted Hours	Predicted Rate	Predicted Direct Costs
II 81	3,384	$7,407	$25,065
III 81	18,546	7.819	145,012
IV 81	54,639	8.049	439,789
I 82	85,034	8.126	690,987
II 82	136,822	8.235	1,126,729
III 82	280,907	8.278	2,325,572
IV 82	375,906	8.821	3,315,867
I 83	566,854	8.866	5,025,727
II 83	701,561	9.011	6,321,767
III 83	989,287	9.056	8,958,983
IV 83	1,156,799	9.489	10,976,866
I 84	1,279,906	9.738	12,463,724
II 84	1,448,437	9.808	14,206,270
III 84	1,489,314	9.868	14,696,551
IV 84	1,575,026	10.535	16,592,899
I 85	1,409,407	10.589	14,924,211
II 85	1,365,905	10.643	14,537,328
III 85	1,119,336	10.697	11,973,537
IV 85	911,207	11.417	10,403,478
I 86	623,190	11.460	7,141,758
II 86	457,598	11.496	5,260,547
III 86	247,953	11.532	2,859,394
IV 86	165,661	12.285	2,035,145
Total	16,462,699	$10.111	$166,446,906

The estimating methods used by both NNS and DCAA at this stage of the estimating process are no different than the methods used in almost all DOD procurements, even those procurements which have no escalation provisions. Both parties made an estimate of the likely costs to be incurred in performance of the contract considering all those factors and circumstances which are likely to impact cost outcome. Most particular, those circumstances unique to NNS (union contract, work forecast, etc.) have been considered.

The next step by NNS and DCAA was to calculate the Predicted Base Cost (Target Cost) using the Escalation Recovery Formula. The indices forecast by NNS and the NAVSEA indices used by DCAA are as follows:

BLS Shipbuilding Index
Forecasts

Period	NNS June 1960 = 100	NNS Sep 1980 = 100	NAVSEA Sep 1980 = 100
Sep 80 (Base)	286.30	100.00	100.00
II 81	297.80	104.02	105.68
III 81	310.80	108.56	107.72
IV 81	317.50	110.90	109.92
I 82	322.50	112.54	111.70
II 82	325.90	113.83	113.67
III 82	336.00	117.36	115.05
IV 82	346.40	120.99	117.78
I 83	351.10	122.63	119.99
II 83	354.90	123.96	122.20
III 83	365.50	127.66	124.41
IV 83	377.80	131.96	127.25
I 84	385.90	134.79	130.15
II 84	389.70	136.12	133.16
III 84	401.00	140.06	136.16
IV 84	412.70	144.15	138.87
I 85	420.60	146.91	141.45
II 85	424.80	148.38	144.02
III 85	437.00	152.64	146.59
IV 85	450.00	157.18	149.29
I 86	458.50	160.15	152.05
II 86	463.10	161.75	154.82
III 86	476.40	166.40	157.58
IV 86	490.40	171.29	160.49

Predicted Base Costs were as follows:

NNS Initial Proposal
SSN 688
Production Labor

	Predicted Direct Costs	$1 - \frac{IB}{IP}$	Predicted EPA Cost Recovery	Predicted Base Costs
II 81	$25,036	0.0386	$966	$24,070
III 81	145,619	0.0788	11,479	134,140
IV 81	442,576	0.0983	43,491	399,085
I 82	691,925	0.1114	77,096	614,829
II 82	1,118,101	0.1215	135,860	982,241
III 82	2,305,408	0.1479	341,009	1,964,399
IV 82	3,311,349	0.1735	574,515	2,736,834
I 83	5,014,391	0.1846	925,470	4,088,921
II 83	6,232,666	0.1933	1,204,736	5,027,930
III 83	8,826,423	0.2167	1,912,593	6,913,830
IV 83	11,189,720	0.2422	2,710,056	8,479,664
I 84	12,889,935	0.2581	3,326,865	9,563,070
II 84	14,650,944	0.2653	3,887,369	10,763,575
III 84	15,128,458	0.2860	4,327,268	10,801,190
IV 84	17,051,234	0.3063	5,222,379	11,828,855
I 85	15,762,806	0.3193	5,033,155	10,729,651
II 85	15,341,849	0.3260	5,001,991	10,339,858
III 85	12,626,120	0.3449	4,354,134	8,271,986
IV 85	10,954,765	0.3638	3,985,100	6,969,665
I 86	7,728,809	0.3756	2,902,728	4,826,081
II 86	5,686,102	0.3818	2,170,811	3,515,291
III 86	3,087,269	0.3990	1,231,927	1,855,342
IV 86	2,193,516	0.4162	912,921	1,280,595
Total	$172,405,021	0.2917	50,293,919	$122,111,102

DCAA Recommended
SSN 688
Production Labor

	Predicted Direct Costs	$1 - \frac{IB}{IP}$	Predicted EPA Cost Recovery	Predicted Base Costs
II 81	$25,065	0.0537	1,347	$23,718
III 81	145,012	0.0717	10,393	134,619
IV 81	439,789	0.0886	38,961	400,828
I 82	690,987	0.1047	72,378	618,609
II 82	1,126,729	0.1203	135,502	991,227
III 82	2,325,572	0.1354	314,963	2,010,609
IV 82	3,315,867	0.1510	500,564	2,815,303
I 83	5,025,727	0.1666	837,276	4,188,451
II 83	6,321,767	0.1817	1,148,475	5,173,292
III 83	8,958,983	0.1962	1,757,815	7,201,168
IV 83	10,976,866	0.2138	2,347,025	8,629,641
I 84	12,463,724	0.2317	2,887,296	9,576,428
II 84	14,206,270	0.2490	3,537,763	10,668,507
III 84	14,696,551	0.2656	3,902,964	10,793,587
IV 84	16,592,899	0.2790	4,628,685	11,964,214
I 85	14,924,211	0.2930	4,373,346	10,550,865
II 85	14,537,328	0.3057	4,443,363	10,093,965
III 85	11,973,537	0.3178	3,805,501	8,168,036
IV 85	10,403,478	0.3302	3,434,784	6,968,694
I 86	7,141,758	0.3423	2,444,781	4,696,977
II 86	5,260,547	0.3541	1,862,702	3,397,845
III 86	2,859,394	0.3654	1,044,828	1,814,566
IV 86	2,035,145	0.3769	767,064	1,268,081
Total	$166,446,906	0.2661	44,297,676	$122,149,230

?

These summaries show how the apparent NNS overstatement in direct labor rates was largely offset by the higher rate of increase in the NNS estimated BLS index. An initial NNS-DCAA difference of $5,938,115 in Predicted Direct Costs was narrowed to a $38,128 difference in Predicted Base Costs using the prescribed procedure for calculating target cost. Substantial agreement was reached without having to resolve the major differences with regard to the impact of a new union contract scheduled for November 1983 and without having to negotiate detailed estimates for the shipbuilding index.

The amounts which the AIG report contends should have been used to price the estimated total costs are as follows:

AIG Calculations
SSN 688
Production Labor

Period	Predicted Hours	Predicted Rate	Total Predicted Costs
II 81	3,384	$8.000	$27,072
III 81	18,546	7.810	144,844
IV 81	54,639	7.960	434,926
I 82	85,034	8.100	688,775
II 82	136,822	8.240	1,127,413
III 82	280,907	8.390	2,356,810
IV 82	375,906	8.540	3,210,237
I 83	566,854	8.700	4,931,630
II 83	701,561	8.860	6,215,830
III 83	989,287	9.020	8,923,369
IV 83	1,156,799	9.260	10,711,959
I 84	1,279,906	9.440	12,082,313
II 84	1,448,437	9.650	13,977,417
III 84	1,489,314	9.870	14,699,529
IV 84	1,575,026	10.070	15,860,512
I 85	1,409,407	10.260	14,460,516
II 85	1,365,905	10.440	14,260,049
III 85	1,119,336	10.630	11,898,542
IV 85	911,207	10.820	9,859,476
I 86	623,190	11.020	6,867,554
II 86	457,598	11.230	5,138,826
III 86	247,953	11.430	2,834,103
IV 86	165,661	11.640	1,928,294
Total	16,462,699	$9.879	$162,639,995

The AIG predicted rates are based on the actual rate of $7.25 incurred for the Base Month of September 1980 adjusted using the NAVSEA BLS Index forecast. For example, the AIG rate for the fourth quarter 1983 was calculated as follows:

$$\text{Rate for IV 1983} = \text{Rate for Sep 1980} \quad \frac{\text{BLS Index IV 1983}}{\text{BLS Index Sep 1980}}$$

$$= \$7.25 \left(\frac{127.75}{100.00}\right)$$

$$= \$9.26$$

The major difference between the AIG position and the DCAA position at this stage of the estimating process is that the AIG position does not reflect the union agreement which was effective at the time NNS prepared its proposal and which extended through October 1983. The AIG position that contract pricing should ignore union agreements which are contractually binding on the contractor and which will generate allowable costs in accordance with the applicable cost principles in favor of an industry index is a radical departure from the generally accepted methods of pricing Government contracts.

The AIG calculation of Predicted Base Cost (Target Cost) using the NAVSEA BLS Index forecast is as follows:

AIG Calculations
SSN 688
Production Labor

	Predicted Direct Costs	$1 - \frac{IB}{IP}$	Predicted EPA Cost Recovery	Predicted Base Costs
II 81	$27,072	0.0938	2,538	$24,534
III 81	144,844	0.0717	10,386	134,458
IV 81	434,926	0.0892	38,793	396,133
I 82	688,775	0.1049	72,279	616,496
II 82	1,127,413	0.1201	135,453	991,960
III 82	2,356,810	0.1359	320,234	2,036,576
IV 82	3,210,237	0.1511	484,919	2,725,318
I 83	4,931,630	0.1667	821,938	4,109,692
II 83	6,215,830	0.1817	1,129,513	5,086,317
III 83	8,923,369	0.1962	1,751,038	7,172,331
IV 83	10,711,959	0.2171	2,325,166	8,386,793
I 84	12,082,313	0.2320	2,802,995	9,279,318
II 84	13,977,417	0.2487	3,476,249	10,501,168
III 84	14,699,529	0.2655	3,902,003	10,797,526
IV 84	15,860,512	0.2800	4,441,574	11,418,938
I 85	14,460,516	0.2934	4,242,169	10,218,347
II 85	14,260,049	0.3056	4,357,238	9,902,811
III 85	11,898,542	0.3180	3,783,356	8,115,186
IV 85	9,859,476	0.3300	3,253,225	6,606,251
I 86	6,867,554	0.3421	2,349,426	4,518,128
II 86	5,138,826	0.3544	1,821,240	3,317,586
III 86	2,834,103	0.3657	1,036,444	1,797,659
IV 86	1,928,294	0.3771	727,252	1,201,042
Total	$162,639,995	0.2661	43,285,427	$119,354,568

Thus, the AIG's Predicted Base Cost for production labor is approximately $2.4 million less than DCAA's. Using the AIG method for other labor costs and adding the appropriate overhead and other rates would result in a reduction of approximately $8.0 million in contract target cost. Virtually all of this difference is because the AIG method does not provide amounts to cover the increases of the NNS union contract.

During contract performance, EPA cost recovery will be based on the movement of the published BLS index. The index will not adequately recognize movements in the NNS labor rates which are unique to NNS, just as it will not do so for any other shipyard. (A portion of the movements unique to NNS will be reflected in the BLS index inasmuch as NNS labor costs comprise approximately 30% of the population used to calculate the index.)

To the extent a Contractor's actual labor rate increases exceed the rate of increase of the BLS index, the difference in costs must be included in the target cost or must be funded as overrun during contract performance. As previously stated, the only purpose of the NAVSEA EPA provisions is to mitigate risks resulting from changes in the purchasing power of the shipbuilding industry's dollar. The provisions do not compensate for changes in labor rates resulting from factors unique to a particular contractor.

When it was explained to the AIG reviewers that use of their method would have resulted in a NAVSEA negotiation position understated by approximately $8 million, the reviewers responded that this was entirely proper inasmuch as tne NNS share in the resulting overrun would be a proper penalty for having rates which increase at a faster rate than the increase in the BLS index.

No company's rates move in concert with the any BLS index. The BLS indices are national indices, calculated each month on a moving average basis and change at a more-or-less steady rate. Rates of individual shipyards experience their most dramatic changes at specific times, for example, when there is a massive layoff or when increases provided by union contracts become effective.

Most shipbuilders' rates will move ahead of the index at some times or periods, then fall behind the index at other times or periods. Therefore, it is most unlikely that the escalation of labor costs on any individual NAVSEA shipbuilding contract will exactly match the increase in the BLS index. Generally, half the contracts will have escalation in excess of the index and half will have escalation less than the index. Thus, calculation of target costs using only the movement of the index to forecast changes in labor rates as recommended in the AIG report will, generally, result in underpricing half of the contracts and overpricing the other half. It is true, as stated by the AIG reviewers, that the total amount of overpricing for all contracts will be roughly equal to the total amount of underpricing. Therefore, underrun funds could be used to fund overrun contracts; however, financial management of the contracts would be chaotic.

The essential steps in the pricing of NAVSEA shipbuilding contracts do not differ from the steps in pricing any other Department of Defense or Government contract. No significant DOD contract is priced using labor rates calculated solely on the basis of a published national index. When asked if the AIG intended to extend the recommendation of the AIG report to other Defense items, the AIG reviewers stated that, at this time, the recommendation would only cover shipbuilding contracts. The AIG should state the reasons why NAVSEA shipbuilding contracts are singled out for this unorthodox approach to contract pricing and financial management.

Use of the AIG recommended method of pricing would create even greater problems for competitive contracts. An example, which was discussed in detail with the AIG reviewers, will illustrate some of these problems.

This example assumes that three contractors are competing for a shipbuilding contract. The contractors analyze their labor wage forecasts as follows:

> Contractor A's union contract will expire the first year of contract performance. Increases under the current union contract were much less than the increases of the BLS index during that period. (For a period of 17 months Contractor A's employees were given no wage increases while the index increased over 11%.) Contractor A is certain that his wage increases during contract performance will exceed increases of the industry.
>
> Contractor B is desperate to improve his competitive position. Loss of the contract would be a severe blow. Contractor B has renegotiated his union contract. In exchange for equity in the company, his employees have agreed to a complete wage freeze during the performance period of the competitive shipbuilding contract.
>
> Contractor C estimates that over the life of the contract his wage rate increases, taken as a whole, will not differ significantly from the wage increases of the industry. He proposes wage increases equal to the NAVSEA forecast of the BLS Index.

(It should be noted that the reasons for the change in wage rates are not material to proper pricing. The results would be the same if Contractor A's increases resulted from a declining labor force and if Contractor B's level rate resulted from an increasing labor force).

Using the NAVSEA prescribed method of pricing, the three competitors would forecast labor wages as follows:

Labor Wage Forecasts

Contractor A	**Base**	**B+1**	**B+2**	**B+3**
Predicted Wage Increase	-	9%	10%	8%
Predicted Index Increase	-	7%	7%	7%
Predicted Wage	10.00	10.90	11.99	12.95
Predicted Index	100.0	107.0	114.5	122.5
Base (Target Cost) Wage Rate	10.00	10.19	10.47	10.57

Contractor B	**Base**	**B+1**	**B+2**	**B+3**
Predicted Wage Increase	-	0%	0%	0%
Predicted Index Increase	-	7%	7%	7%
Predicted Wage	10.00	10.00	10.00	10.00
Predicted Index	100.0	107.0	114.5	122.5
Base (Target Cost) Wage Rate	10.00	9.35	8.73	8.16

Contractor C	**Base**	**B+1**	**B+2**	**B+3**
Predicted Wage Increase	-	7%	7%	7%
Predicted Index Increase	-	7%	7%	7%
Predicted Wage	10.00	10.70	11.45	12.25
Predicted Index	100.0	107.0	114.5	122.5
Base (Target Cost) Wage Rate	10.00	10.00	10.00	10.00

The NAVSEA method of pricing properly preserves the competitive advantage gained by Contractor B when his employees agreed to forego wage increases. The NAVSEA method does not change Contractor A's competitive disadvantage.

In contrast, the AIG recommended method would require Contractors A and B to calculate wage rates exactly the same as Contractor C. They would be required to use the BLS index forecast to calculate the predicted wage and would not be permitted to consider those factors unique to their own circumstances. Contractors A and B would be required to use Base (Target Cost) Wage Rates equal to the rates calculated by Contractor C. The result would be to eliminate the competitive advantage of Contractor B and the competitive disadvantage of Contractor A. Contractor B would be required to overprice and Contractor A would be required to underprice.

Why should the Navy prescribe a method of pricing which would eliminate the competitive advantage gained by the willingness of the employees of Contractor B to forego wage increases? The AIG reviewers answered that Contractor B would be adequately compensated when he shared the underrun of his overpriced contract. This would hardly be sufficient compensation if Contractor B failed to secure the contract because the Navy required an unfair method of pricing. It would be very hard to defend the pricing method against a protest from Contractor B. In this case the Navy would also lose by paying a higher price.

C. Contract Target Profit

The statements on page 6 of the AIG report concerning target profit calculations are in error. Pages 51-54 of the NAVSEA Business Clearance Memorandum describe the calculation of NAVSEA's initial target profit objective. This calculation used the NAVSEA forecast of the BLS indices to escalate target cost. The NAVSEA calculated profit was equal to 14% of escalated cost. Page 68 of the NAVSEA Business Clearance Memorandum describe the final calculation of the Weighted Guidelines target profit. Using the Contracting Officer's escalated cost of $808.7 million (incorrectly identified as the NNS escalated cost on page 6 of the AIG report), the NAVSEA Weighted Guidelines profit amount totaled $111.5 million. This calculation used forecast indices which were larger than the NAVSEA forecast. Use of the NAVSEA forecast indices would have resulted in a target profit objective of $110.6 million. The negotiated target profit was $102.5 million. As discussed with the AIG reviewers, the Contracting Officer's use of the NAVSEA forecast indices in his final calculations would have made no change in the contract target profit.

SPECIFIC EXAMPLES OF EXCESSIVE COSTS

Senator Roth: This same technique was also allowed on the CVN 71 for an estimated additional profit of some $70 million. Again, why? Isn't it a violation of Navy regulations for a contractor to use his own rather than the Navy's escalation rates on contracts?

Commodore Platt: We can find no basis for the $70 million. Again, Newport News escalation rates were not used by the Navy in the CVN 71 negotiations. In pricing its shipbuilding contracts, the Navy uses Government forecasts of escalation to be experienced by the individual shipbuilder as well as Government forecasts of escalation to be experienced by the shipbuilding industry.

Senator Roth: There was defective pricing of some $10 million on CVN 70, some $11 million on CVN 71 and lesser amounts on the 72 and 73. This means that the contractor proposed prices were not supported by current or accurate data and were therefore overstated. What has been done to recover the millions of dollars in defective pricing on the carrier contracts?

Commodore Platt: For defective pricing for CVN 70 and CVN 71, discussions have been in process with the shipbuilder for some time and it is anticipated they will be completed shortly. If not resolved satisfactorily within a reasonable period, the Navy is prepared to exercise the authority under the contracts to issue a Contracting Officer's final decision reducing the contract value for any items under dispute.

The Navy has not received any report of a completed defective pricing review for CVNs 72 and 73. If and when received, it will be acted upon promptly.

Senator Roth: In connection with Mod 1 to the CVN-71 contract, what has the Navy done to recoup the money associated with work not performed on the standard magazine?

Commodore Platt: The Navy did not pay twice for materials or labor on the magazines for these aircraft carriers. The $29.8 million increase in target cost for the improved magazine for CVN 71 was the net increase necessary for adding the additional protection to the magazine. Previously ordered steel, which could no longer be used because of the change, had not been completely identified when the modification was negotiated. It was therefore agreed that when such unused steel was identified, an appropriate credit would be made by contract modification. This credit was made to the Navy in November 1984, by contract modification which reduced the contract target price by approximately $965,000. Other appropriate credits for deleted materials and work were considered in the contractor's proposal for the initial modification for the improved magazine.

Senator Roth: And what has the Navy done to obtain similar credits on the contract for CVN 72 and 73?

Commodore Platt: For CVN 72 and CVN 73, the improved Damage Protection System was not added as a contract modification, but was included in the requirements of the basic contract. Therefore, only the new system was priced in the basic contract. Therefore, there was no deleted work priced into the basic contract.

CONCLUSION

Senator Roth: Committee investigators found some $700 million in unnecessary costs on the aircraft carriers and the SSN 688 submarines? Why weren't these excessive costs caught by the Navy?

Commodore Platt: Attached are the Navy's comments for each individual item. Of all of these items, only those dealing with defective cost or pricing data (Items 8 and 9) have known merit. These two items were first discovered by the Defense Contract Audit Agency during their routine post-award audit of the contracts for the aircraft carriers. The remaining items are based on obsolete reports for which adjustments were made, incomplete information, or misunderstandings of how contracts are priced.

An example can demonstrate why it is incorrect to conclude there were unnecessary costs and can demonstrate that the contracts were fairly priced.

For the CVN 71 contract, it can be inferred from the Committee's chart that the contract target cost is overstated by approximately 30%. This is not the case. As of 30 September 1984, the CVN 71 contract was over 75% complete with completion scheduled by early 1987. Based on experience through 30 September 1984 and an analysis of work yet to be performed, it is now estimated that the target cost of the CVN 71 contract, including the target cost for the improved magazine protection system, is accurate within 2.8%.

This is remarkable pricing accuracy for any complex Defense item. Considering the CVN 71 contract was the first forward-priced nuclear aircraft carrier, the achievement is even more noteworthy. This experience demonstrates that the Navy's analysis was correct. The Navy is confident that the reasonableness of the CVN 72/73 prices will also become obvious as that program progresses.

NAVY RESPONSES TO LISTED ALLEGATIONS OF UNNECESSARY COSTS

1.	Delivery schedule of four 688 class submarines increased by 36 months and price increased when changed from a competitive to a sole source buy.	$185 million

Navy Response

The Navy does not agree. The contracts entered into were supported by technical analysis and detailed audits. The $185 million is incorrectly arrived at by subtracting from the target price of the August 1981 Newport News contract the Electric Boat offered price of March 1980 extrapolated for three ships. Comparing the target price of the awarded contract to the target price of the Electric Boat offer of March 1980 is misleading. Evaluation of the March 1980 Electric Boat offer revealed that the target cost was significantly underbid. For example, construction labor effort was understated an estimated 1.4 million hours for a cost understatement of approximately $22.3 million per ship. It is likely that, had the Navy accepted the Electric Boat offer of March 1980, cost overruns would have resulted in a final cost to the Government substantially higher than the proposed amount.

Therefore, a more meaningful comparison is between the Newport News competitive offer of March 1980 and the contract awarded. The differences between the competitive Newport News proposal of March 1980 for two submarines and the eventual target cost of the negotiated contract for three (not four) submarines are principally as follows:

1. The March 1980 proposal was in September 1979 dollars, whereas the awarded contract was priced in September 1980 dollars. Changing the base month merely shifted some escalation costs to target cost and has no impact on final cost to the Government. This change increased the target cost by $45.741 million.

2. Newport News had not been awarded an SSN 688 contract since 1977. This lapse of four years in award of a ship resulted in a break in production. The optimum interval between submarine deliveries is normally six months and the March 1980 proposal was predicated on such an interval between construction of ships in progress and the first of the two submarines. The awarded contract reflected a 23-month

interval, which impacted major cost elements such as labor man-hours due to loss of production continuity between ships. $14.145 million was included in the NAVSEA target cost for the break in production.

3. Additional specification requirements added after the March 1980 proposal increased the target cost by $5.902 million.

4. Increased requirements by Occupational Safety and Health Administration increased target costs by $8.383 million.

5. Overhead and other rate changes, including changes to cost of money calculations, prescribed for use by Cost Accounting Standards, increased target cost by $34.787 million. It is likely that the preponderance of these costs would have been overrun costs under the March 1980 Newport News offer.

6. Additional non-recurring costs totaled $4.844 million.

7. A net target cost increase of $17.797 million resulted from (a) changing the construction period from 55 months to 64 months, (b) imposing new stringent anti-claims requirements such as "Drawings and Other Data" Clause, the stricter "Insurance" Clause , and "Notification of Changes" Clause, and (c) negotiation reductions.

The following summarizes the estimated changes to target cost.

	Target Cost (million's)
NNS March 1980 Competitive Offer Extrapolated for Three ships	$441.434
Base Month Change	45.741
Production Break	14.145
Specification Differences	5.902
OSHA Requirements	8.383
Rate and COM changes	34.787
Additional non-recurring	4.894
Delivery change, anti-claims clauses, etc.	17.797
Other	(.583)
Target Cost of Awarded Contract	$572.500

The reasonableness of the three-ship target price for the August 1981 contract can be confirmed by comparisons with the target prices of contracts for two submarines awarded on a price competitive basis in April 1982, eight months after the

three-ship award. All of these ships were priced in September 1980 dollars and are, therefore, directly comparable. The per ship prices for the April 1982 awards were $239.8 million for Electric Boat and $236.4 million for Newport News. The per ship price for the August 1981 award to Newport News was $224.7 million. The April 1982 awards included the Tomahawk Vertical Launch System (VLS) which was not included in the August 1981 award. Adjusting the April 1982 prices to eliminate VLS and adjusting the August 1981 price to eliminate costs associated with the production break and other non-recurring costs results in an August 1981 non-competitive price of approximately $217.5 million and April 1982 competitive prices of approximately $225.6 million for Electric Boat and $222.5 million for Newport News. The price for the non-competitive three-ship award to Newport News, therefore, compares favorably with the competitive prices.
Therefore there is no basis for the contention that the contract awarded to Newport News in August 1981 was overpriced.

2. Estimated cost for standard magazine not credited to Navy after change to improved magazine for CVN 71.	$50 million

Navy Response

The Navy has received appropriate credits for deleted steel and work for the CVN 71. The $29.8 million increase in target cost for the improved magazine for CVN 71 was the net increase necessary for adding the additional protection to the magazine. Previously ordered steel, which could no longer be used because of the change, had not been completely identified when the modification was negotiated. It was therefore agreed that when such unused steel was identified, an appropriate credit would be made by contract modification. This credit was made to the Navy in November 1984, by contract modification which reduced the contract target price by approximately $965,000. Other appropriate credits for deleted materials and work were considered in the Contractor's proposal for the initial modification for the improved magazine.

The allegation that there were $50 million of unnecessary costs because deleted materials and work were not properly credited is incorrectly derived from an analysis of an internal memorandum of 20 February 1981 written by a Navy price analyst after reviewing the NAVSEA prenegotiation position. This memo was written prior to completion of negotiations and the matters discussed therein were later resolved. A review of this memorandum reveals that none of the amounts questioned by the analyst were related to credits for deleted materials and work, although concerns were expressed that the credit should be properly documented and that there was no credit for steel.

The major difference between the cost analyst's and the Naval Sea Systems Command (NAVSEA) positions was the escalation estimate. This is an estimate used in evaluating target profit and does not appear in the contract. This escalation estimate had no direct bearing on the final target cost of the contract. The difference in estimate resulted from NAVSEA's not adequately explaining how the escalation estimates were made. This explaration was provided to the price analyst and his superiors in a meeting on 24 February 1981. As a result of this explanation, the price analyst increased his estimate from $59.5 million to $100.4 million, for a total that is $5.4 million less than amount finally used in negotiations. This was explained in a second memorandum signed by the price analyst on 25 March 1981. The major portion of the $5.4 million difference resulted from the analyst's disagreement with calculating profits in the manner prescribed by the Defense Acquisition Regulations and directed by the Navy's Ship Acquisition Policy Advisory Council in November 1979. The 25 March 1981 memorandum further indicated that NAVSEA's method of handling the steel credit was satisfactory and indicated the possibility that the NAVSEA negotiated amount could be too low by $46 million. The price analyst recommended to his supervisors that the improved magazine modification be approved as negotiated by NAVSEA.

There is absolutely no basis for the allegation that $50 million of unnecessary costs resulted from a failure to credit deleted work and materials.

3. Same as above for CVN 72 and 73 $100 million

Navy Response

The Navy does not agree. Apparently, this is an extension of the incorrect CVN 71 allegation to the CVN 72 and CVN 73.

The improved magazine protection system was called for in CVN 72 and CVN 73 contract; however, because this requirement was known at the outset of proposal preparation for these two ships, the contractor's initial cost proposals included material, labor, and other costs associated with the installation of the new system only and therefore no further adjustment to the contractor's proposal was necessary.

4. Estimate of excessive cost due to excessive slack in contract for CVN 71 $95 million

Navy Response

The Navy does not agree. This apparently refers to the amount which the Navy estimated, and which the General Accounting Office confirmed, would be saved if the CVN 71 is delivered 14 months earlier than the 84-month delivery period of the initial contract.

There was no unreasonable slack in the contract delivery schedule. The Navy contracted for a delivery schedule which was better than any prior performance by the shipbuilder for this class ship. In fact, the delivery schedule contracted for was one of the recommended levels contained in the independent study. The construction period contracted for was in fact twelve months shorter than the schedule proposed by the shipbuilder. The first two Nimitz Class aircraft carriers had required more than 90 months to build. CVN 70 was then under construction and took 86 months to build. The Navy had concluded that a shorter construction period then was possible and had hired consultants to independently assess whether such a shorter period was feasible. In fact, these consultants indicated that the shortest possible construction period was derived by using the actual shortest construction time achieved for each major ship module for the previous ships of the class. Ideally, if every planned work action went superlatively and if the shipbuilder could equal or better this "best previous performance" throughout all portions of the construction, delivery in 74 months could thereby be attained. The 84-month period used for contract purposes was equitable and consistant with the mid-range of the consultant study.

Also, the preponderance of the $95 million savings estimated was for costs which are not included in the contract target price and which, therefore, are not subject to the cost incentive provisions of the contract. For example, escalation costs are not included in the contract target price. Also, costs of the ship's crew, costs of the staff of the Supervisor of Shipbuilding Office, and other Navy administrative costs are not included in contract target price. These are the type of costs which will be saved. The Navy does not agree unnecessary costs were incurred or contracted.

There is no substantive basis for the allegation that the Navy will incur $95 million in unnecessary costs because of excessive slack.

5. Difference between profit at the contract rate (21.6%) versus the Mod. 1 rate (46.1%) $7 million

Navy Response

The Navy does not agree. The comparison of contract target profits to contract target costs is misleading. Target costs for Navy shipbuilding contracts are exressed in deescalated dollars. For example, the target cost for the CVN 71, including the target cost of the improved magazine modification, is based on February 1979 dollars. Target profits, on the other hand, are expressed in escalated dollars and, in accordance with guidelines which are prescribed for use throughout the Department of Defense, are based on estimated total cost of performance. The correct target profit rate of the improved magazine modification, expressed as a percentage of the estimated total cost of performance, is 15.64%. It is incorrect to refer to a target profit rate of 46 percent by comparing target profit which includes escalation and target costs which do not include escalation.

6.	Mod. 4 incentive unnecessary since contractor shares in underruns at 30%	$21.2 million

Navy Response

The Navy does not agree. The incentive is proving of real value. Inasmuch as most of the projected savings were from costs which were never included in the contract target cost and which were not subject to the cost incentive provisions of the contract, the contractor will not share a percentage of most of the underruns. It was precisely for this reason that a delivery incentive was considered the most effective method to encourage early delivery. To the extent early delivery results in a net decrease in costs subject to the cost incentive provisions of the contract, the contractor will share a portion of the savings thereby increasing the incentive payment. This is desirable because it will provide additional motivation for early delivery. An incentive of a larger amount was recommended in the outside study.

7.	Failure to adjust target cost for Navy estimate of time-related, fixed cost avoidance	$13 million

Navy Response

The Navy does not agree. The preponderance of projected total cost savings resulting from early delivery were from costs which were never included in the target cost and it would be inappropriate to reduce the target costs for these amounts. To the extent early delivery results in a net decrease in costs subject to the cost incentive provisions of the contract, the Contractor will share a portion of the savings thereby increasing the incentive payment. This is desirable as it will increase the motivation to reduce cost is well as make the ship available earlier.

8. Use of defective pricing data in the contractor's certified proposal for CVN 70 — $9.5 million

9. Same as above for CVN 71 — $11.8 million

10. Same as above for CVN 72 and 73 — $3 million

Navy Response to 8. 9. and 10.

For defective pricing for CVN 70 and CVN 71, discussions have been in process with the shipbuilder for some time and it is anticipated they will be completed shortly. If not resolved satisfactorily within a reasonable period, the Navy is prepared to exercise the authority under the contracts to issue a Contracting Officer's final decision reducing the contract value for any items under dispute.

The Navy has not received any report of a completed defective pricing review for CVNs 72 and 73. If and when received, it will be acted upon promptly.

11. Two nuclear reactors overpriced due to use of incomplete, non-current, or inaccurate pricing data — $5 million

Navy Response

The contracting actions referred to are under Department of Energy contracts. The Navy understands that the Department of Energy (DOE) is answering these questions and DOE does not agree that over-pricing was involved.

12. Navy gave to the contractor residual materials left over from CVN 70 on the assumption it was the last ship of the class. — $2.5 million

13. Same for CVN 71 — $1.3 million

Navy Response to 12. and 13.

The above items are based on a possible misunderstanding of accounting for material purchases under Department of Defense (DOD) Contracts. The Navy does not agree that the usual accounting procedure for handling residual material resulted in unnecessary costs.

It is customary for DOD contractors to purchase manufacturing or construction spares for use in performing their contracts.

This assures that materials and parts are readily available so that work may continue without interruption. The costs of such spares are allowable under DOD contracts provided the quantities purchased, and the prices, are reasonable.

If it becomes obvious that purchased manufacturing or construction spares will not be required for performing the contract, these items may be transferred for use on another contract. For example, items which are excess to the CVN 70 contract may be transferred for use under the contracts for CVN 71 or CVNs 72 and 73. If items are tranferred, appropriate cost transfers are also required so that the using contract bears the cost of the item and to assure that the Contractor is not paid twice for the same item. If there is no use for an excess item, the contractor may return it to the original supplier or he may be authorized to sell it; in these cases, there is an appropriate credit to the DOD contract.

If excess items remain upon completion of all work under a fixed-price type DOD contract, including the contracts for the CVN 70, CVN 71, and CVNs 72 and 73, the Contractor generally has title to the items; however, in determining the final price of the contract, the contract costs are credited by an amount equal to the fair market value of the items retained by the Contractor. Thus, the Contractor is required to pay for the items.

The contract provisions assure that the Contractor cannot be paid twice for the same item and assure that the Contractor pays the fair market value for any items which are retained by him. Therefore, there are no unnecessary costs as suggested.

14.	Navy gave the Contractor additional amount due to expected rise in steel prices, which is what the contractor will get paid escalation for.	$2.8 million

Navy Response

The Navy disagrees that excessive costs for steel were included in CVN 71 negotiations.

The contention that the Navy included excessive amounts for steel is based on a misunderstanding of the NAVSEA price negotiation memorandum. This memorandum explains that $31,366,600, in base costs, was proposed for steel by Newport News based on March 1980 catalog prices deescalated to base month. Prices paid for $5 million of steel just before CVN 71 negotiations indicated that prices, at that time, were lower than the March 1980 catalog prices. The Government auditor had recommended that the lower prices be projected over the entire steel requirement even though much of the steel would be purchased at later times under different price schedules. The Contracting Officer concluded that the prices of the later price schedules would be higher than those recently experienced and used the higher prices in developing his estimate. This estimate was then deescalated to base month for a total reduction, in base costs, of $2.823 million.

15. Navy gave Contractor premiums to accelerate its equipment deliveries for CVN 71	$6.9 million

Navy Response

The Navy disagrees. The shipbuilder's CVN 71 proposal for major subcontracts for the Ship Service Turbine Generator Sets (SSTG) and the Main Propulsion Turbines proposed costs for these major subcontracts which reflected costs for delivery of the SSTGs and turbines to meet the shipbuilder's proposed 96-month delivery schedule. The shipbuilder had not negotiated the subcontract prices with the subcontractors.

During negotiations, the Contracting Officer took the position that Newport News should be able to reduce the prices proposed by the two subcontractors by $6,563,539, or approximately 13%.

After protracted discussions, and a reduction of approximately $1 million, Newport News satisfied the Navy that the amounts were then valid for the contract. One item specifically considered and accepted by the Contracting Officer was that the delivery dates proposed by the subcontractors would have to be accelerated to support the 84-month ship delivery period.

16. Same as above for CVNs 72 and 73	$15 million

Navy Response

The Navy disagrees. The Navy can find no substantive basis for extending to the CVN 72/73 contract the contention that premiums were given to accelerate equipment deliveries for CVN 71. The contract did not include excessive amounts for these items.

17. DOD-IG reported Contractor improperly using favorable indices to set target cost, which results in additional profit.	$7 million

Navy Response

A reply to the Inspector General's report has been made. The Navy did not rely on Newport News' labor cost projections, as the report claimed, but relied instead on the Defense Contract Audit Agency's recommended labor rates for its labor projections. The target cost and target profit were calculated in accordance with the guidelines of the Defense Acquisition Regulation and the Ship Acquisition Policy Manual. According to Navy experts, use of the pricing method recommended by the Inspector General, rather than the method recommended by the Defense Audit Agency, would result in erroneously priced contracts and would likely violate the Cost Accounting Standards. Attached is a copy of the Navy's response.

18.	Same as above for CVNs 71, 72, and 73	$50 million

Navy Response

We can find no basis for the $50 million. The Navy disagrees that there are unnecessary costs. Again, as discussed in the prior item, Newport News escalation rates were not used by the Navy in the CVN 71 or CVNs 72 and 73 negotiations. In pricing its shipbuilding contracts, the Navy uses Government forecasts of escalation to be experienced by the individual shipbuilder as well as Government forecasts of escalation to be experienced by the shipbuilding industry.

19.	Questionable high level of production labor used in contract for CVN 71	$61.6 million

Navy Response

The Navy disagrees that there were excessive production labor costs negotiated into the CVN 71 contract.

The contention that there were excessive costs is apparently based on the fact that the 35,742,000 production labor hours negotiated exceeded the range of 33,345,500 hours to 34,753,700 initially recommended by Navy technical experts in August 1980.

The production labor hours recommended by the technical experts were based on an estimate of the hours to be required for the CVN 70 adjusted to reflect differences required for the CVN 71. The technical experts continued their analysis after their August 1980 report using more current information as it became available. In September 1980, they concluded that their earlier estimates of production hours for the CVN 70 (which was still 18 months from completion) were too low and that their forecast of the CVN 71 estimated requirement had to be changed. Their revised CVN 71 estimate, the amount finally negotiated, was recommended to the Contracting Officer in a memorandum of 28 September 1980.

Current experience and latest estimates at completion indicate the CVN 71 labor estimates used to price the contract were accurate within 2%.

20. Same for CVN 72 and 73 $130 million

Navy Response

The Navy does not agree that there were excessive production labor costs included in the CVNs 72 and 73 contract.

Apparently, the Committee Staff imputed to the CVN 72/73 contract the erroneous assumption that the CVN 71 contract was overpriced. The negotiated amount of 37.4 million hours of production and engineering labor per ship for CVN 72/73 compares favorably with the latest estimate of 39.4 million hours for CVN 71. The direct labor effort for CVN 72/73 was fairly priced.

21. Excessive cost, poor quality, and delivery slippages of SSBN overhauls during CVN 71, 72, and 73 construction period. Nation's strategic posture degraded. unknown

Navy Response

The SSBN overhaul issues relate to schedule and not cost. The situation has been undergoing constant review and improvements have been and are being made by the contractor.

Senator Roth: Do you believe that the contracts negotiated on the CVN's 71, 72 and 73 and on the four SSN 688's were reasonable in terms of price? Do you believe the taxpayers were well served in these cases?

Commodore Platt: Based on my knowledge of the contracts, I believe they were reasonable in terms of price and I believe the taxpayers were well served by the Navy's actions in these procurements.

These are complex business transactions involving many thousands of man-years work taking place over a decade. The Navy used the service of technical, legal, and contract experts, as well as outside experts, to insure the fairness of the contracts entered into by the Government and the shipbuilder. The Navy has applied cost-sensitive management to its shipbuilding programs to protect the taxpayers against late after-the-fact claims and cost growth. The Navy has taken prudent business steps to encourage lower costs and earlier deliveries. Over 90% of the Navy's shipbuilding programs are being competitively awarded under fixed price type contracts. The Navy's interest in obtaining more competition in its procurements is evidenced by the attached documents which describe the results of competition efforts, future actions planned, and specific guidance to the Navy's Comptition Advocates for increasing competition. The Navy shipbuilding program is being soundly managed and is on track.

COMPETITION ADVOCATE GENERAL
OF THE NAVY
Headquarters Naval Material Command
Washington, D.C. 20360

CAG Com 8
13 August 1984

A FIRST YEAR REPORT FOR COMPETITION ADVOCATES . . .

A year ago Secretary Lehman established the Office of the Competition Advocate General of the Navy to pursue increased competition in the procurement of weapons systems, components, parts, and services for the Navy and Marine Corps. After reflecting on our first 12 months, I decided to share with you some results of the Navy's efforts—thus this "annual report"!

SHIPBUILDING COMPETITION. This fiscal year, we will buy over 86 percent of our ships competitively. Especially encouraging is that over 90 percent of ships to be built or converted in the current five-year defense plan, including the SSN21 class of attack submarines, will be competed. We have set the right business posture for the future in shipbuilding, a major segment of the Navy budget. In shipboard weapons and equipment, as well, we have incorporated competition into many of our acquisition strategies. Examples include the MK-48 ADCAP (advanced capability torpedo), MK-50 ALWT (advanced lightweight torpedo), and propellers for the DDG52 and subsequent Arleigh Burke class destroyers.

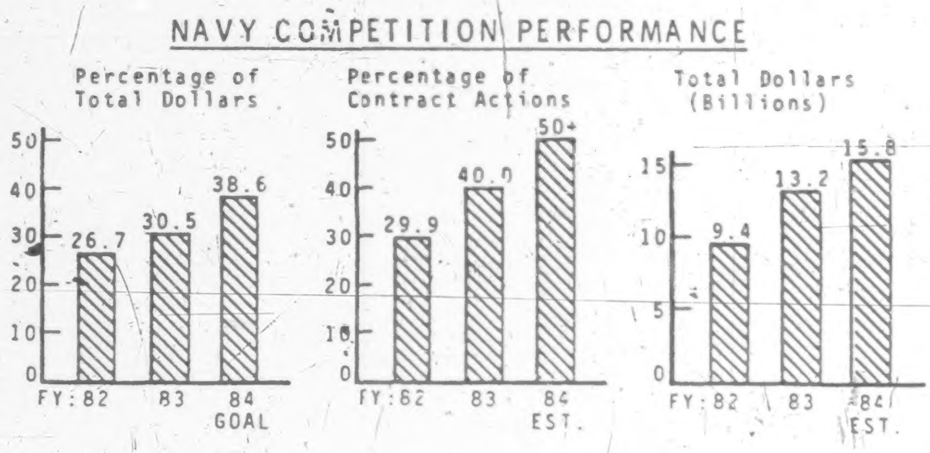
AIRCRAFT, MISSILE AND ELECTRONIC SYSTEMS COMPETITION. Major strides in competing aircraft, missile, and electronic systems have also been made. Competition is a keystone in major new starts such as the CV Inner-Zone ASW Helicopter and JVX Advanced Vertical Lift Aircraft, and in other programs such as the common ejection seat and the purchase of commercially owned C-9 aircraft. The Navy's recent decision to establish a second production source or accelerate second-sourcing plans for the Phoenix, Rolling Airframe, and Standard missile programs is an important step. New missile programs will be competed in a similar fashion.

To benefit the F-14D upgrade program and expedite its on-time completion, the Navy selected the winner of the fighter aircraft engine competition run by the Air Force with Navy participation. We established a competition base for aircraft inertial navigation systems using ring laser gyro technology, which should break a sole-source hold existing for years. The Navy's objective here, as elsewhere, is to put forces in place that will stimulate contractors to reduce costs and improve performance so we can afford the level of naval weapons we must have.

SAVINGS BEING ACHIEVED ARE IMPRESSIVE. Last year's competition between prime contractors for three Aegis cruisers yielded $228 million in savings from the President's budget request for those ships. Competition in FY 84 for SSN668 class submarines resulted in savings of $108 million from the President's budget request. Interjecting competition in the recent buy of "RD-358" shipboard magnetic tape units produced a winning bid of $27 million from the challenger, providing the Navy with a savings of some $20 million over the bid of the previous sole-source supplier. Competition for production of 42 "TBX" Thinline Arrays is saving the Navy $250,000 per unit over the production estimate of $700,000 per unit, for total savings exceeding $10 million.

A competitive climate brought about an estimated $22 million savings in the FY 84 contract for the joint cruise missile engine. Aggressive competition for nuclear attack submarine contracts has motivated private submarine construction yards to achieve breakthroughs in production technology: the improved facilities and fabrication techniques are expected to shorten construction periods and cut costs. These are just a few of numerous examples of the practical impact of increased competition.

HEIGHTENED AWARENESS IN THE NAVY. I have noted an increased awareness of competition in middle and first-line management throughout the Navy. People in Washington headquarters commands and field activities are realizing that the Navy is serious in its commitment to competitive procurement. Much of the change is due to the strong and active support we are receiving from the President, the Secretary of Defense, and our senior Navy leaders. I also sense that the mood of the general public is supportive of Navy competition efforts. This overall endorsement of more competition is having a telling effect, as the following graphs indicate:



In FY 83, we exceeded, by some $215 million, the Navy's competition goal of 30 percent of total direct purchase dollars. This fiscal year, we have set our competition goal significantly higher: 38.6 percent of total procurement dollars. That equates to $15.8 billion in competitive awards, and we expect over half of our contract actions to be competitive. Although progress toward this FY 84 goal is mixed through the first nine months, we anticipate reaching our goal.

PROJECT BOSS. To help correct the problems we have found in our spare parts acquisition process and to facilitate more spare parts competition, the Chief of Naval Material established Project BOSS (Buy Our Spares Smart). Its objective is to ensure that the Navy pays only fair and reasonable prices for spare parts, which will help us obtain the highest possible state of fleet readiness with available funds. Project BOSS incorporates over 100 initiatives designed to improve the process of buying spare parts. To support these initiatives, some 350 new billets have been allocated Navy-wide.

The breakout initiative can save precious stock fund dollars, particularly when we stop buying from prime contractors and start competing requirements directly with active subcontractors. Our inventory control points have conducted full breakout reviews of over 3,800 items this year, already exceeding our FY 84 goals, and thousands of other breakout reviews are also being conducted. There is an across-the-board acceptance of responsibility for controlling Navy procurement costs—the bottom line is that BOSS is working. All this represents solid progress which will earn dividends for years to come.

Rights in technical data are often an essential element in obtaining competition. The Navy is systematically reviewing restrictions on data and challenging restrictions where appropriate. We have reached agreements with major prime contractors (for example, Litton, United Technologies, Sperry, and IBM) which eliminate or reduce restrictions on data and have been well publicized. We are committed to do battle in instances where we find improper restrictions on data. We will defend our actions in the courts if necessary.

COMPETITION ADVOCATES ARE IN PLACE. Competition advocates have been appointed at all buying activities with procurement authority over $25,000. In addition, more than 150 competition advocates have been designated at field activities which generate more than one million dollars in annual procurement requirements.

SOUND JUDGMENT. The recording of history is one of mankind's most inhuman products, but judgment based on historical records is the keenest tool for dealing with problems near at hand. As competition advocates, you must use sound judgment and have the courage of your convictions as you go about executing the Navy's program of full and open competition in procurements. The following are some observations for your consideration:

> Judgment: the capacity to make sound and reasonable decisions; good sense; discernment.
>
> The American Heritage Dictionary

> Knowledge comes, but wisdom lingers. It may not be difficult to store up in the mind a vast quantity of facts within a comparatively short time, but the ability to form judgments requires the severe discipline of hard work, and the tempering heat of experience and maturity.
>
> The Thirtieth President
> of the United States

> This above all: to thine own self be true,
> And it must follow, as the night the day,
> Thou canst not then be false to any man.
>
> William Shakespeare

Competition should be used to help give us more quality and product for our scarce dollars. Your mission is to challenge sole-source procurements and promote maximum practical competition in contracting. We are all expected to do what is best for the Navy and our country. At times competition may not make good business sense. In such a case, you should promptly recommend approval of a valid proposed sole-source award and move on to other issues.

Remember not to be overly influenced by pessimists or those who are resistant to change or work and who do not have the open mind and vision to recognize the potential results of competition. Use your common sense and attack problems on a case-by-case basis. Be wary of studies, many of which we see yield distorted results and are clearly too biased for use in generalized predictions. We cannot ignore the widespread use of competition in commercial business—if competition did not work and make sense, industry would not be competing their purchases so extensively!

FUTURE ACTIONS. It's the people on the firing line like you who will, in the long run, determine the success of our program. I suggest you keep the following steps in mind as you address individual issues:

- Pay particular attention to contractor support services, and pursue competition in this area with vigor; you should expect more direction in this area shortly.
- Expect industry's continued cooperation, but be prepared if necessary to use the Navy's resources and proceed on your own if cooperation is not forthcoming.
- Continue to press for the technical data needed to permit the second sourcing and the spare parts procurement reforms we are seeking.
- Aggressively breakout spare parts to competition to take advantage of the demonstrated savings. Spare parts procurement is one area where we all have our credibility on the line and we must remain strong.
- Enforce the contractor commitments we have obtained on lifting of restrictions on data rights, use of suppliers and licensees for direct purchase, etc., and seek commitments from contractors whom we have not yet heard from.
- Continue to emphasize early planning for competition as an essential element in a complete acquisition strategy; clearly we should look for a plan to compete in all new starts.
- Encourage maximum possible subcontractor competition; here we need our NAVPROs, SUPSHIPs, and other contract administering activities to lead the way.
- Be tough-minded but fair in our dealings with industry; the taxpayers deserve no less.

Remember that we are carrying out the strategy of the Secretary of the Navy and Chief of Naval Material to use competitive forces to our advantage. As we seek to compete our procurements, we also seek to ensure quality in our weapons systems, which must be rugged, reliable and maintainable—our ships and aircraft must be able to survive in wartime or time of crisis.

SUMMARY. We are extensively increasing the use of competition in procurement to reduce costs, improve contractor performance, and strengthen the industrial base. We have made competition a part of all new shipbuilding, aviation, and missile programs, as well as created competition through starting dual sourcing of many of our existing complex weapons systems. In short, we are using competition where it makes sense.

The powerful market force of competition is bringing about very dramatic and real savings. We are setting the right stage for the Navy's future business. This important program you and I have been participating in is accelerating—we now need to keep it moving smartly while directing it equitably.

Stuart Platt

STUART PLATT
Commodore, SC, USN
Competition Advocate General

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HEADQUARTERS NAVAL MATERIAL COMMAND
WASHINGTON D C 20360

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MEMORANDUM FOR COMPETITION ADVOCATES

Subj: MULTIPLE SOURCES FOR PRODUCTION COMPETITION

Encl: (1) FY84 Navy Competitive Procurement Statistics

It is clear we have a duty not only to propose alternatives for maintaining production competition in our acquisition strategies for new programs but also to examine all reasonable alternatives for introducing sustainable competition into existing sole-source production programs. It is axiomatic that we need at least two viable sources potentially bidding for a contract, whether or not each is actually producing the item now, for real competition to exist. As competition advocates, we know there are various multiple-source competitive strategies to consider. I offer this letter as background information for your participation in production competition decisions.

In the period immediately preceding the Civil War, the Navy had the same number of ships—when privateers were included—as it does today. Of course our Naval warfighting capability in 1984 is so great that any comparison with the capability of 125 years ago is relatively meaningless. To acquire the major warships of the Civil War era and post-war period through the late 19th century, the Navy relied on a small group of private shipbuilders. Then in 1902, Congress authorized the procurement of the first two Connecticut-class battleships under a curious dual-sourcing arrangement. The lead battleship was to be built in a United States Navy shipyard, and her sister ship was to be ordered from a private builder. The Connecticut was reported to have cost $7.5 million, the Louisiana, $6.1 million. From then until the end of World War II, Navy warships were built in both private and Navy shipyards, thus establishing a precedent for public and private sector competition while maintaining a wide industrial base. Though we no longer build our ships in Navy yards, the rationale for multiple sources remains: to provide the impetus for achieving economic efficiency in our free-enterprise system.

Second sourcing initiatives continue to have the interest of the senior Navy leadership. The Naval Air Systems Command is executing Secretary Lehman's recent decision to establish a second competitive producer for the F404 fighter-aircraft engine. The Secretary has also directed a review of all major aviation simulator programs; second sourcing will be an issue during this review.

The following outlines the major methods that have been successfully used for obtaining production competition:

The **TECHNICAL DATA PACKAGE** method requires the procurement of drawings and specifications that are adequate for a new contractor to produce the item independently of the original developer. After validation by the government at a qualified technical activity, the package is repeatedly used to maintain competition throughout the production program. This technique has the advantage of minimizing impacts on logistics and is most appropriate for less complex systems where technology is easy to document. A successful example is the Sparrow missile's guidance and control unit.

The **FORM, FIT, AND FUNCTION** approach relies on performance and interface specifications as the basis for production competition. This method does not require a detailed data package or specific hardware. The resultant freedom of internal design facilitates introduction of new technology and associated cost reductions. Application is most appropriate for expendable items, such as ordnance and consumable spares.

In the **CONTRACTOR TEAMING** approach, two contractors generally form a joint venture for the design and development phases. Through the cooperative exchange of design and manufacturing data, each contractor becomes able to compete against the other during the production phase. This technique is being employed in the JVX aircraft program, which will be the first Navy aircraft program to be fully competitive from the design through production phases.

The **DIRECTED LICENSING** approach can be implemented in the design phase by including a clause in the developer's contract permitting the Navy to conduct competition for production quantities. The winner of the production competition is appointed a licensee of the developer, who provides technical assistance and manufacturing data. Although the Navy employs this technique for production of the Tomahawk cruise missile engine, directed licensing is fraught with complexities and should only be entered into after the most careful consideration.

The **LEADER-FOLLOWER** approach involves the direct contractor-to-contractor transfer of technical data, generally accomplished by the prime contractor (leader) subcontracting to a specified company (follower). This approach facilitates the development of a second source while minimizing Navy involvement and is being utilized to instill competition for all-up rounds in the Tomahawk cruise missile program.

Competition is the best tool we have to achieve lower costs, improved contractor performance, and a strengthened industrial base. The establishment of multiple production sources for a program motivates the competing contractors to find more efficient ways to produce the product in their bids to win annual production contracts or the major share of annual procurement quantities. Detailed analysis has demonstrated that the introduction of a second production source typically results in a downward shift of the cost-improvement curve as well as a rotation of the curve to a steeper slope. It is not at all unusual to find that the second production source can rapidly match and soon better the original manufacturer's cost-improvement curve, especially for less-complex systems. When that occurs, real competition has begun and production monopolies are ready to be eradicated.

As competition advocates, you have an important role to play in helping assess multiple-sourcing techniques or in recommending effective means of inserting competition into existing and planned production programs, whether large or small. The enclosed statistics reflect the significant improvement in competition performance we have achieved in a relatively short time; however, the much higher level of 45% we seek in fiscal year 1985 will require your dedicated efforts and those of others involved in the acquisition process. I suggest you take the following actions:

- Stay personally involved. You should not acquiesce in proposed acquisition strategies plans or contracts unless you are comfortable that they have been intelligently structured. Advance planning can preclude last-minute disruptions and costly changes.

- Educate others you work with. Many people are well-meaning but not fully knowledgeable. Remember that the Competition in Contracting Act of 1984 establishes full and open competition as the baseline contracting approach and inserts you in the approval chain for procurements valued between $100,000 and $1 million.

- Actively solicit new sources. Many competent firms, including, for certain equipments, foreign firms of our NATO allies, are potential second production sources. Industry generally wants to be more competitive and given the opportunity, can be creative in their endeavors to enter new competitive fields. After all, "reported profits" in the defense industry at least equal the commercial sector. Your effort can be an influence for contractors to reinvest these profits in more efficient production methods.

- Continue to challenge restrictive data. We have recently won a major court challenge by a contractor who sought to enjoin the Navy from removing restrictive legends from their data package. We need to continue to seek full access to drawings and other technical documents for which we have paid.

In summary, good judgment and a sense of equity must become the forcing functions in our competition implementation plan. You serve as a check-and-balance in the process. The Navy's credibility is on the line. Each procurement deserves our best efforts: honest reporting of the facts, objective forecasts up the line, and an open mind. The future is in your hands, so try conscientiously to do your job right. You should expect some dissatisfaction and confrontation as you proceed, for history plainly shows us that major changes and improvements are not universally applauded.

Stuart Platt

STUART PLATT
Commodore, SC, USN
Competition Advocate General

FY1984 COMPETITIVE PROCUREMENT STATISTICS

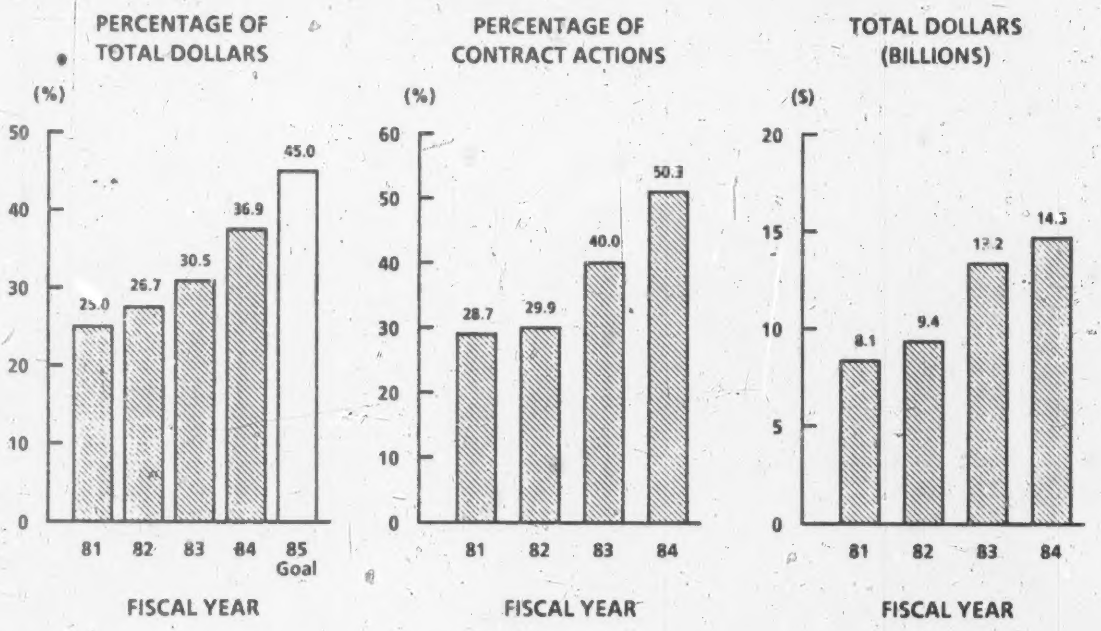
DEPARTMENT OF THE NAVY

(DOLLARS IN BILLIONS)

NAVY PROCUREMENT COMPETITION TOTALS	FY1982	FY1983	FY1984	% CHANGE FY1982-84
Percent of Total Direct Procurement Dollars Awarded Competitively	26.7%	30.5%	36.9%	38%
Direct Procurement Dollars Awarded Competitively	$9.4	$13.2	$14.5	54%
Percent of Individual Contract Actions Awarded Competitively	29.9%	40.0%	50.3%	68%
SPARE PARTS				
Percent of Aviation Supply Office Dollars Awarded Competitively	6.9%	9.1%	25.4%	268%
Percent of Ships Parts Control Center Dollars Awarded Competitively	29.4%	21.1%	35.2%	20%
Total Navy Spare Parts Procurement Dollars Awarded Competitively	$ .43	$ .51	$1.0	133%
CONTRACTOR SUPPORT SERVICES				
Percent of Contractor Support Services Awarded Competitively	28.9%	36.8%	47.9%	66%

PREPARED BY THE OFFICE OF THE
TION ADVOCATE GENERAL OF THE NAVY

DEPARTMENT OF THE NAVY
PROCUREMENT COMPETITION PERFORMANCE



DATE: NOVEMBER 1984

OFFICE OF THE COMPETITION ADVOCATE GENERAL
(ESTABLISHED JULY 1983)

Chairman ROTH. If I may, and I know my colleagues want to ask some questions, but I think I would like to proceed with Mr. Ross, who I think was the contracting officer, weren't you, on this procurement?

Mr. ROSS. Yes, Mr. Chairman, I was.

Chairman ROTH. I am going to ask you if you would proceed and give your testimony before we proceed with further questions.

Mr. ROSS. Thank you, sir.

TESTIMONY OF ROBERT G. ROSS, FORMER PROCUREMENT CONTRACTING OFFICER, NAVAL SEA SYSTEM COMMAND, CURRENTLY ADVANCED AUTOMATION BRANCH MANAGER, FEDERAL AVIATION ADMINISTRATION

Mr. ROSS. Mr. Chairman, members of the committee, I am here today in response to your request that I appear before you to discuss the details of pricing and schedule adjustment of the contract for CVN-71 and the contract for CVN-72 and 73. I served as contracting officer for the CVN-71 contract when it was executed in 1980. However, in that time, I have not served as a contracting officer with the Navy for nearly 2 years. I have not been involved with that contract or in its administration for a substantial period of time.

Chairman ROTH. When did you leave the administration of those contracts?

Mr. ROSS. It was February 1983. In the time available since receiving your request to testify last Tuesday, I have had the opportunity to review some of the extensive background materials concerning the contract to seek to answer any questions you may have about my involvement with these contracts. I have responded to the issues raised in your letter of invitation in an attachment to this statement. Let me take a moment now to summarize briefly the substance of the information contained in that attachment.

CVN-71 pricing and agreement on delivery date for CVN-71 was the result of extensive time-consuming analysis and subsequent negotiation with Newport News Shipbuilding resulting in a contract award in September 1980. All issues in the DCAA audit report were discussed at length with the DCAA auditors and the Navsea technical advisers. Factfinding sessions were conducted with Newport News Shipbuilding pricing and technical people prior to reaching a Navsea negotiation position.

During negotiations, Newport News was advised of our pricing position. Both sides expressed their views and provided additional data to support their respective side of the issues involved. The Navsea negotiation team, which included auditors, pricing specialists, industrial specialists, lawyers, and business managers considered the overall agreement on the price to be an acceptable, fixed-price incentive contract arrangement with a reasonable target cost.

For the CVN-71, MOD 1 was issued for improved magazine protection. This proposed additional effort affected the entire construction period for the carrier over the 7-year period resulting in additional target costs of $30 million and a 5-month extension of the construction period.

This review and negotiations process followed the same sequence of steps as described in the initial pricing of the ship. The negotiation team worked out an acceptable position with Newport News that was considered to be fair and reasonable to the Government.

CVN-71, MOD No. 4, was an additional incentive to ensure that Newport News would allocate the necessary management and resources to deliver CVN-71 earlier than the contract delivery date. It was considered advantageous to provide an additional incentive to Newport News should they deliver the ship 14 months earlier than required by the contract.

Forecasting a savings to the Government of some $94 million, an amount of $21 million was offered as a bonus to Newport News should they deliver early. The incentive was to ensure that they would manage their facilities and resources in such a way that early delivery would occur and result in subsequent savings to the Government.

Regarding the pricing of CVN-72 and CVN-73, this multiship contract was awarded 1 year after award of the long lead material contract to Newport News Shipbuilding. The negotiation position was established following detailed analysis of the contractor's proposal by technical analyists and auditors, including factfinding discussions with Newport News representatives.

Protracted negotiations were held with Newport News, exploring all areas of questioned costs. Through the iterative discussion process, a settlement was negotiated for contract target cost and delivery of these two ships. It was considered by all members of the Navsea negotiation team to be a reasonable incentive arrangement.

Mr. Chairman, that completes my prepared statement. I would be pleased to try to respond to questions you may have at this time.

[Mr. Ross' prepared statement, with attachments, and responses to written questions submitted by Chairman Roth follow:[1]]

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[1] See p. 105 for Mr. Ross' responses to written questions submitted by Chairman Roth.

STATEMENT OF ROBERT G. ROSS, FORMERLY CONTRACTING OFFICER, AIRCRAFT CARRIER BRANCH OF SHIPBUILDING CONTRACTS DIVISION, DEPARTMENT OF NAVY, CURRENTLY ADVANCED AUTOMATION BRANCH MANAGER OF THE CONTRACTS DIVISION, ACQUISITION AND MATERIEL SERVICE, FEDERAL AVIATION ADMINISTRATION, BEFORE THE SENATE COMMITTEE ON GOVERNMENTAL AFFAIRS, CONCERNING THE CVN 71, 72, AND 73 AIRCRAFT CARRIER CONTRACTS, DECEMBER 5, 1984.

Mr. Chairman and Members of the Subcommittee:

I am here today in response to your request of November 28, that I appear before you to discuss the details of pricing and schedule adjustment of the contract for CVN 71, N0024-80-C-2023, and the contract for CVN 72/73, N0024-83-C-2033. I served as Contracting Officer for the CVN 71 contract when it was executed in 1980; however, in that I have not served as a Contacting Officer with the Navy for nearly 2 years, I have not been involved with that contract or in its administration for a substantial period of time. In the time available since receiving your request to testify last Thursday, I have had the opportunity to review some of the extensive background materials concerning this contract, and the CVN 72/73 contract, and will seek to answer whatever questions you may have about my involvement with these contracts. I have responded to the issues raised in your letter of invitation in an attachment to this statement. Let me take a moment now to summarize briefly the substance of the information contained in that attachment.

CVN 71 PRICING:

Contract pricing and agreement on delivery date for CVN 71 was the result of extensive, time consuming analysis and subsequent negotiation with NNS resulting in contact award in September 1980. All issues in the DCAA Audit Report were discussed at length with the DCAA Auditors and NAVSEA Technical advisors. Fact finding sessions were conducted with NNS pricing and technical representatives prior to reaching a NAVSEA negotiation position.

During negotiations NNS was advised of our pricing position. Both sides expressed their views and provided additional data to support their respective side of each issue. The NAVSEA negotiation team which included auditors, pricing specialists, industrial specialists, lawyers, business managers, considered the overall agreement on price to be an acceptable incentive contract arrangement, with a reasonable target cost.

CVN 71 MOD 1 - IMPROVED MAGAZINE PROTECTION:

The proposed additional effort affected the entire construction period for CVN 71, resulting in additional target costs of $30M and a five-month extension of the construction period. This review and negotiation process followed the same sequence of steps as described in the initial pricing of the ship. The negotiation team worked out an acceptable position with NNS that was considered to be fair and reasonable to the Government.

CVN 71 MOD 4 - ADDITIONAL INCENTIVE:

To ensure that NNS would allocate the necessary management and resources to deliver CVN 71 earlier than the contract delivery date, it was considered advantageous to provide an additional incentive to NNS should they deliver the ship 14 months earlier than required by the contract. Forecasting a savings to the Government of some $94M, an amount of $21M was offered as a bonus to NNS should they deliver early. The incentive was to ensure that they would manage their facilities and resources in such a way that early delivery would occur and result in subsequent savings to the Government.

CVN 72/73 PRICING:

This multi-ship contract was awarded one year after award of the long-lead-material contract to NNS. The negotiation position was established following detailed analysis of the contractor's proposal by technical analysts and auditors, including fact finding discussions with NNS representatives.

Protracted negotiations were held with NNS exploring all areas of questioned costs. Through the iterative discussion process, a settlement was negotiated for contract target cost and delivery of these two ships. It was considered by all members of the NAVSEA negotiation team to be a reasonable incentive arrangement.

Mr. Chairman, that completes my prepared statement. I would be pleased to try to respond to questions you may have at this time.

A. CVN-71 Contract N00024-80-C-2023

Awarded	September 1980	$1,555,400,000
Delivery	September 1987	(7 years after contract award)

NNS Proposed	$1,196,516,400
Pre-negotiation Position	$1,091,795,400

Summary: DCAA/TAR
Questioned 15.2% of costs proposed by NNS

NAVSEA
Questioned 8.7% of costs proposed by NNS

Manhours Proposed	TAR	Negotiated
32,055,600	31,169,200	32,055,600

History Available

CVN-68	30,679,000	final
CVN-69	28,126,000	final

Increases in manhours for CVN-70 from prior ship data (CVN-69) due to:

recent health and safety standards,
declining skill level of workers,
change in work ethic,
imposition of new work rule by the new shipyard union,
stricter interpretation of laws by local, state and Federal Governments,
competition from Norfolk Naval Shipyard for skilled people,
changing workload at NNS.

Negotiations began 2 September 1980
Continued through 25 September 1980

Sixteen - Government specialists participated in the negotiations, these technical advisors and analysts were from the following offices:

NAVSEA Program Office
NAVSEA Nuclear Directorate
SUPSHIP Technical
SUPSHIP Pricing
DCAA Newport News

NAVSEA did not accept the NNS position of $985.3M for a target cost

NAVSEA goal of $899.8M was based on fact finding with contractor, discussions with DCAA Auditors, NAVSEA and SupShip Technical advisors. Negotiated cost of $950M was based on total contract cost and did not result from agreement on individual cost elements with NNS.

Final acceptance of production manhours of 32,055,600 for CVN-71 was based on a revised technical manhours report utilizing manhour returns on CVN 70 for the preceeding 18 months. This higher forecast was based on productivity degradation which was occurring on CVN-70.

Delivery schedule negotiations were on-going with Newport News from the inception of requesting a proposal for the CVN Construction. Our negotiations, labor and cost estimates throughout this process were based on an 84 month construction schedule. I relied on the negotiation team which included program office and field advisors. Program office had independent studies prepared by Booz Allen and Advanced Technology Incorporated regarding alternative production schedules for CVN-71 which were considered in reaching overall agreement with NNS..

Pricing negotiated is contained in NAVSEA Pre-Negotiation Business Clearance 12,330.1 dated 27 August 1980 which represents NAVSEA initial assessment of the pricing arrangement.

Following negotiations on 25 September 1980 the record of pricing adjustments and the rationale is contained in NAVSEA Post-Negotiation Business Clearance 12,330.2 dated 29 September 1980.

B. Mod 1 to CVN 71 contract 80-C-2023, March 1981.

Improved Magazine Protection - H-1 of the basic contract - required a proposal to be submitted within 60 days by NNS. The proposal was to be null and void after 91 days.

Increased Target cost by $33.4m

Extended delivery date by 5 months, from 9/87 to 2/88.

Total price agreement was reached on the basic contract and no agreement was reached on individual cost elements for this changed work.

Base Contract	NNS Proposed	NAVSEA Pre	NAVSEA Post
$950m Cost	$29.8m Cost	$29.1m	$29.8m
$739m Escalation	13.7m Profit	10.3m	13.7m
12.16% Profit Overall	12.68%	12.16%	15.64%
21.62% Contract Target Cost	41.14%	35.486%	46.14%

Contractor was adamant in achieving their position as it was proposed. NAVSEA analysts considered the proposed costs to be reasonable. During negotiations the NAVSEA position was to hold the pricing and fee to that established under the base contract which included a 12.16% overall profit.

A profit analysis of $14,522,479 was supported using the Weighted Guidelines Analysis form. It was recognized that the changed work had a high risk potential due to compartment and structural rearrangement, unique material handling and welding techniques and the ongoing installation of this system through the outfitting period. Due to this high risk an overall profit of 15.64% was considered to be fair and reasonable.

NAVSEA negotiation position utilized reports from DCAA, technical program office and the administrative contracting officer. These advisors assisted in establishing an adjustment in cost, incentive provision and delivery schedule of the basic CVN-71 contract.

C. Mod 4 to CVN 71 Contract 80-C-2023, December 1981.

Provided for an additional incentive under the contract in the form of a sharing in the cost savings which would result from early delivery.

Confirmed Required Delivery Date of February 1988	Established Target Target Delivery Date of December 1986

Incentivized a 14 months early delivery by establishing a $21.2M bonus; if delivery should occur later the incentive bonus was to be reduced by $49,882 per day.

Desirable that NNS work towards an early delivery in anticipation of follow-on CVN 72/73.

Benefits to the Government: reduced escalation costs of $53M and time related costs of $42M should the ship be delivered 14 months early.

Earlier construction of follow ships CVN 72/73 would provide the opportunity for reduced costs to the Government should the follow ships be awarded.

Regarding early delivery of CVN-71 it had been pointed out by the NAVSEA Program Manager at various times that NNS had the capability of delivering the CVN-71 earlier than they had initially proposed. However, the Contractor had to have the desire or interest in finishing the ship in an earlier time than that proposed. NNS or its parent conglomerate could develop an overall business strategy which would not match with early delivery or even timely delivery of a particular ship. An example might be a strategy which uses a large ship as a fly wheel to carry a given amount of a facilities overhead costs for a specific number of years.

D. CVN-72/73 Contract N00024-83-C-2033 Awarded December 1982

$3,143,000,000

Delivery Schedule	CVN 72	December 1989 (7 years after contract award)
	CVN 73	December 1991 (9 years after contract award)

This ship construction contract followed an initial long lead material contract for two ships which was awarded in November 1982.

It was the Navy's intent to procure and construct CVN 72/73 using the technical and management baselines developed through the iterative process in the design, construction and delivery of CVN's 68, 69 and 70.

Pre-Negotiation Cost Position

Proposed	TAR/AAR	NAVSEA
$2.6B	$2.3B	$2.5B

Negotiation position was based on a detailed analysis of contractors proposal, DCAA Advisory Audit, NAVSEA Technical Analysis, and the Administrative Contracting Officers analysis. Extensive meetings were held in NAVSEA Headquarters, DCAA Office and SUPSHIP Offices in Newport News, Virginia. During these fact finding sessions the NAVSEA negotiation position was developed.

Discussions regarding manhours and material had been continuing for the eighteen months prior to December 1982. As a result of early reviews the proposed manhours were generally considered to be acceptable for the two ship program.

During the negotiation process the following pricing positions were established, and accounted for revisions, from the original proposal and reflect subsequent changes in the NAVSEA position.

	NNS Updated Proposal	NAVSEA Pre-Negotiation	NAVSEA Revised Pre-Negotiation
Target Cost	$2.617B	$2.473B	$2.521B

During discussions with NNS it became obvious that they were unwilling to consider the Navy's overhead projections acceptable. They felt it would be difficult to maintain the Navy's projected proposed rate through this contract period.

NNS also disagreed with NAVSEA's position concerning material costs and direct labor rates.

Only after protracted discussion with both parties expressing different opinions regarding the levels of cost in the above categories was it considered necessary to negotiate total cost. After numerous negotiation sessions a total target cost of $2.54B was agreed upon. All members of the NAVSEA negotiation team considered this to be a fair and reasonable settlement for this procurement. Of the seventeen persons on the negotiation team, three were from DCAA, one from the on-site Supervisor of Shipbuilding Office, four technical analysts from the Nuclear Power Directorate and four technical and business management representatives were provided by the Program Office.

E. Newport News shipyard is probably the largest shipyard in the United States. It has a reputation of providing quality work at reasonable cost. It is a known fact that they generally are able to underbid competitors at the outset and follow through on contract costs considerably less than other shipyards for similar type work.

This reputation would stand them in good stead of securing all types of work, such as new ship construction, repair, overhaul, outfitting and modernization work from Government as well as commercial sources.

Should the North Yard remain idle its associated costs are allocated to all users of NNS facilities. The Government is not particularly concerned about which space or facility is allocated to which customer. Rather it is concerned that its contractors have adequate resources allocated to them.

Use of the North Yard was not a significant issue during negotiations with Newport News since it could decide which facilities to use during what timeframe to coincide with all existing work and future work planned for their facility.

RESPONSES OF ROBERT G. ROSS TO WRITTEN QUESTIONS SUBMITTED BY SENATOR ROTH

PRESSURES TO SIGN CONTRACTS

1. QUESTION: Mr. Ross, you were the Contracting Officer for the CVN-71, 72 and 73, and the only Government official authorized to sign contracts binding the Government to make payments and abide by contract terms on these contracts, it that correct?

   ANSWER: No. I was the assigned principal Contracting Officer for the Naval Sea Systems Command (NAVSEA) for the CVN-71, 72 and 73. Other persons within the organization were also authorized to sign contracts binding the Government for these ships.

2. QUESTION: How many people did you have assisting you in your duties?

   ANSWER: Approximately 20 people. Within the NAVSEA Purchase Division, a contract specialist was under my direct supervision. For pricing matters, I utilized the services of the DCAA Office at Newport News, approximately 12 people. Additional assistance was provided by the Administrative Office at the Supervisor of Shipbuilding, two business management specialists and a subcontract pricing specialist. Within the NAVSEA Project Office four specialists worked on labor, manufacturing and production analyses.

3. QUESTION: Do you think you had enough assistance considering the size and complexity of the aircraft carrier contract?

   ANSWER: Yes

4. QUESTIONS: I understand that the contractor never would reach agreement on the terms for the construction of the CVN-70, the nuclear powered aircraft carrier preceding the CVN-71, is that correct? Isn't it true that we were essentially using a simple letter contract to build the CVN-70?

   ANSWER: I was not involved in pricing the CVN-70 at any stage of its acquisition, since I was not assigned to the aircraft carrier procurements until December 1979. However, it is generally known that due to negotiation differences, the CVN-70 cost-reimbursable contract continued for four years without a definitive contract price.

5. QUESTIONS: As you can see from the data in the attached table, there appear to have been numerous opportunities to reduce costs on the CVN-71 contract. Were you aware of these opportunities before you signed the contract for the CVN-71 and all the modifications thereto? If you did know, why did you sign these documents?

ANSWER: The attached table to your letter of December 11, 1984 contains 4 notations which seem to relate to the initial CVN-71 contract pricing. (Slack in CVN-71 Schedule; Residual Material, CVN-70, Given to Contractor; Front Loading Labor: CVN-71; and Additional Profit on Carriers due to Selective Use of Escalation/De-escalation Indices). The negotiations for the CVN-71 occurred in the fall of 1980. The detailed negotiation records are available in the Naval Sea Systems Command Headquarters. I do not recall the specific quantification of the cost numbers presented in your table. However, our negotiation cost objective of $899.8M was established based on a detailed review of the proposed costs which included delivery schedule, residual material, labor and use of escalation/de-escalation indicies. During negotiations, every attempt was made to convince the contractor that his cost proposal was high and that our objective appeared to be a more realistic projection of costs which would be incurred during the contract period of performance. During the negotiation process, the contractor consistently refused to accept our lower cost projections. In some cases, we accepted his rationale for cost projections. As the negotiating record indicates, our acceptance of $950M was based on total contract cost and was not the result of agreeing on individual cost elements.

The attached table to your letter of December 11, 1984 contains 2 notations which relate to modifications to the CVN-71 contract. (Exorbitant Profit on Mod 1; and Unnecessary Incentive). Modification 1 to the CVN-71 contract provided for additional target costs of $29.8M, target profit of $13.7M, and an estimated $58M recoverable escalation costs. A $13.7M profit based on costs of $87.8M is not considered to be an "exorbitant profit."

A contractors capability to deliver early does not ensure that he will allocate the necessary resources to delivery early. Without an adequate incentive, management priorities may dictate that company resources should be allocated to work other than CVN-71. Therefore, an incentive of $21.1M to ensure delivery of CVN-71 fourteen months ahead of the confirmed required delivery date is not considered to be an unnecessary incentive. Further, accomplishment of a fourteen-month early delivery is expected to reduce the Government's total cost paid out to the contractor by approximately $73M.

6. QUESTIONS: Were you under pressure to get a contract signed with the contractor because your superiors wanted a contract signed as soon as possible? Why do you think they wanted the contract signed so badly?

ANSWER: Throughout the Government, we have endeavored to achieve contract award in accordance with established milestone dates. There is a certain amount of pressure associated with awarding major contracts; however, in these instances, there were no demands to sign a contract as soon as possible.

7. QUESTIONS: Did you make any attempt to let them know that there were opportunities for savings in the proposed contract that should have been pursued? If you did, what was the response?

ANSWER: The negotiation team pursued and discussed with the contractor, at length, all approaches which supported constructing the carriers at the Government prenegotiation cost objective.

SAVINGS ON THE AIRCRAFT CARRIER

1. QUESTION: The Navy claimed that we would save $74 million by accelerating the purchase of the CVN-71 by 14 months. Why wasn't this savings reflected in a reduction in target cost?

ANSWER: The Navy claimed potential savings of approximately $94M by accelerating the delivery of CVN-71 by 14 months. The estimated savings are attributable to reduced costs of $53M in escalation payments and $42M time-related costs. The target cost was not reduced since (1) escalation costs are not part of the target cost and (2) we did not change the contract required delivery date of February 1988, and, therefore, there was no basis upon which to reduce the target cost.

2. QUESTION: Would it be accurate to call the $74 million savings "conjectural" in your view?

ANSWER: No, since the savings will most probably occur, as the ship was launched some 17 months ahead of the original schedule. Our review of the situation at that time, provided sufficient evidence that such an occurrence was probable and in the Government's best interests.

3. QUESTION: Did the contractor himself tell the Navy that he was ahead of schedule and would probably deliver the carrier about as early as the Navy wanted, before the Navy offered him an incentive payment of $21 million to make early delivery?

ANSWER: No. The Contractor, to my knowledge, did not state that it would probably deliver the carrier about as early as the Navy wanted.

4. QUESTION: Wasn't the contract structured so the contractor received a percentage of the savings for any underrun occurring on the contract?

ANSWER: Yes

QUESTION: Wouldn't that have been incentive enough to make early delivery?

ANSWER: This amount was not considered to be an adequate incentive to ensure a 14-month early delivery of CVN-71.

QUESTION: Doesn't the $21 million payment simply represent "foregone escalation or inflation" that the contractor would have gotten if the contract were carried out to its originally agreed delivery date?

ANSWER: Since it is estimated that the Government would pay out $94M for delivery of the ship in February 1988, it would not pay out a $21M incentive payment. Our forecast at the time the incentive was negotiated predicted an expenditure of $94M by the Government if the ship were to be delivered in February 1988, which would be paid to the contractor in escalation payments and time-related costs.

LACK OF COMPETITION IN THE CONTRACT

1. QUESTIONS: We were informed the contractor failed to negotiate in good faith on such things as the delivery schedule for the CVN-71. Is this true? Do you think this is because of his sole-source position?

ANSWER: The contractor participated in numerous negotiation sessions prior to contact award for CVN-71. These sessions were difficult and, at times, seemed to bog down, due to differences of opinion on major issues, such as delivery schedule and elements of cost. While the contractor occasionally appeared to be uncooperative, I would not consider its actions as "failing to negotiate in good faith."

2. QUESTIONS: Are you aware that there was a modification to the contract to build an improved magazine for the aircraft carrier that included a profit of 46 percent for the contractor? We were informed the contractor simply put his proposal for building the improved magazine on the table and basically told the Navy to take it or leave it. Is this true?

ANSWER: The improved magazine protection modification significantly altered the production work effort, through the 7-1/2 years of contract performance.

In effect, the total contract work was changed. Contract adjustments were therefore required in cost, profit and delivery schedule.

The target cost was increased by $30M, from $950M to $980M, estimated escalation costs were increased by $58M, from $739M to $797M; overall target profit was increased by $13.7M, from $205.4M to $219.1M: overall profit was increased by 3%, from 12% to 15%.

The contractor was inflexible in negotiating adjustments to the contract, for this changed work for the improved magazine protection.

The negotiated overall higher profit of 15% is considered reasonable due to the increased risk inherent in this type of work. The improved magazine protection production effort is characterized by unique material handling and welding techniques which affect the ships compartment and structural rearrangement.

3. QUESTION: Are you satisfied that the contract negotiated on the CVN-71 was a fair and reasonable one from the standpoint of the Government, and that we got the best deal possible from the contractor?

ANSWER: A fixed-price-incentive contract provides for a reasonable target cost and fee arrangement, with a ceiling amount beyond which all costs are borne by the contractor. The negotiated settlement for the CVN-71 is considered to be fair and reasonable. At that time, that was the most favorable settlement that we were able to negotiate.

4. QUESTION: What do you think should have been done differently on the CVN-71 to ensure that we got the best price we possibly could?

ANSWER: The pricing arrangement for the CVN-71 was the first time the Navy was able to fix-price a 7 year aircraft carrier contract.

The price negotiated was considered to be fair and reasonable by both parties. However, the Navy would have liked to have achieved its negotiation objectives. The other alternatives, to cancel the procurement or contract on a cost reimbursable basis, were not considered to be acceptable alternatives.

As Commodore Platt indicated at the hearing, the Navy learned from its experience in negotiating these fixed-price contracts for aircraft carriers. The Navy is in a better position than I to describe how subsequent negotiations will be improved, based upon experiences with these two aircraft carrier contracts.

Chairman ROTH. Thank you, Mr. Ross. First of all, I would like to go back to the CVN-70. That was an earlier nuclear aircraft carrier procured by the Government. Did you ever agree to a specific contract to cover that procurement, or was that covered by letter of intent?

Mr. ROSS. CVN-70 contract?

Chairman ROTH. Yes.

Mr. ROSS. That contract was awarded on a cost reimbursement basis, and it took 4 years to get it priced. During that time, Newport News was operating on a cost reimbursement, and they were paid cost. It was finalized after 4 years as fixed-price incentive contract.

Chairman ROTH. What was the specific date?

Mr. ROSS. I don't recall.

Chairman ROTH. When was the contract finalized?

Mr. ROSS. I am not sure of that.

Chairman ROTH. Roughly, in the 1970's?

Mr. ROSS. It must have been in the 1975 era, I suspect; 1976.

Chairman ROTH. When it came to negotiating CVN-71, there was a considerable difference of opinion between the contractor and the studies made by consultants as to how long the new aircraft carrier should take. It is my understanding the Navy commissioned three studies, two by private contractors and one by the Navy's own technical people, concerning the schedule for CVN-71. Are you acquainted with these?

Mr. ROSS. Yes, sir; I am familiar with those reports.

Chairman ROTH. Isn't it true that all of them concluded that the original 90-plus-month-delivery schedule targeted by the Navy and proposed by the contractor contained excessive amount of slack?

Mr. ROSS. I am unsure of that, Mr. Chairman, although being familiar with the reports, I did not read them necessarily in their entirety. We have a program office that we work with, which analyzes the details. Let me state that during negotiations, from the early on part of negotiations, our concern over the delivery date was a continuing one. We made attempts to negotiate an earlier delivery with the company.

Chairman ROTH. It was a very significant part of the negotiations; isn't that true? Isn't that critically important to the Navy, the time schedule, the timeframe?

Mr. ROSS. Yes; sir, it is critical, but the company steadfastly was of the opinion that historically they had no basis upon which to establish an earlier delivery date, in spite of what studies may have been done by the Navy.

Chairman ROTH. I am not asking the contractor; I am asking what did the Navy think. They had three studies made. Were you the contracting officer?

Mr. ROSS. Yes, sir; I was the contracting officer.

Chairman ROTH. As the contracting officer, wouldn't a key part of the negotiations be the timeframe?

Mr. ROSS. It is a key part of the negotiations.

Chairman ROTH. Why is it key?

Mr. ROSS. Well, sir, because their proposal is based in man-hour allocation for the 7-year period and the price they propose is based on time, on delivery time.

Chairman **Roth**. Isn't it true the longer period of time, costs tend to increase; would you say that is correct?

Mr. **Ross**. Well, it normally follows as a conclusion, if it takes longer——

Chairman **Roth** [interposing]. Partly because of escalation of cost.

Mr. **Ross**. Yes, sir; that's true.

Chairman **Roth**. You were the contracting officer responsible for signing this contract; is that accurate?

Mr. **Ross**. Yes, sir; I was the assigned contracting officer working for Commodore Platt, for the Naval Sea System Command.

Chairman **Roth**. Do you or do you not recall the three studies made with respect to the time schedule?

Mr. **Ross**. Sir, as I told you before, I do recall, we have business specialists and production specialists working in the project office that go over the data and go over the man-hour returns——

Chairman **Roth** [interposing]. What do you recall those three consultant studies stated, two of them by outside consultants, one by internal technical people?

Mr. **Ross**. That is an advisory opinion by consultants.

Chairman **Roth**. I am asking what did they say?

Mr. **Ross**. They forecast the possibility of an earlier delivery, earlier than the 84 months that was negotiated.

Chairman **Roth**. Just let me point out, one of the—in fact, they are up on the board, the consultant opinions—Booz-Allen & Hamilton prepared an evaluation. It reported, and this is a quote:

"The 96-month construction period proposed by NNS"—that is, Newport News Shipbuilding & Dry Dock Co.—"was unduly long with excessive amounts of slack, particularly in the award to keel portion of the schedule."

It goes on to say, "This period would also result in excessive costs to the Navy. The 84-month construction period postulated by the study team was readily attainable with slack present."

It goes on and says, "The 74-month construction period was judged to be the most attractive of the alternatives identified by the study team."

It is my understanding that both of the outside consultants, as well as the internal study, recommended a shorter period. Do you recall, Commodore Platt?

Commodore **Platt**. Yes, sir.

Chairman **Roth**. Is that correct?

Commodore **Platt**. Perhaps if I can take a moment.

Senator **Levin**. Will you talk a little bit louder?

Commodore **Platt**. Thank you, Senator Levin. I am familiar with the studies because I had a chance yesterday and today to read them again, and I brought a copy of the Booz-Allen study you referred to, and if it is acceptable, perhaps, though it is quite long, it might be worthy to submit for the record.

The Booz-Allen study and one done by another company, Ad Tech, were reviewed by Navy people. This Booz-Allen study recommended several things to the Navy. It did identify the shorter construction period as "the most attractive." It recommended the use of an incentive to achieve shorter construction periods.

Chairman Roth. Let's keep on the subject matter. I don't want to muddy the waters. It is complicated enough. What I am saying is that each of these consultants, although advisory, that is correct, recommended a shorter period.

Commodore Platt. Yes, sir; this study analyzed three periods of time. It analyzed the 96-month period, an 84-month period, and a 74-month period. The midpoint period of 84 months was the one, in fact, we contracted for.

One of the problems in the negotiations is that this was the first time the Navy fixed priced a contract for this type ship in advance. It was a 7- to 8-year-construction period. The contractor was very reluctant to accept the contract risk that we thought he would encounter in building it in the shorter time period that was discussed.

The other report you talked about, the Ad Tech one looked at the three ships that were built earlier, and it took the best construction period for each compartment built in each of those ships and came up with sort of a boundary analysis for the minimum time each section of the ship could be built, if it were built in the best fashion. That came out to about the 74-month range, I believe.

Chairman Roth. Let me go back. Isn't it a fact that——

Commodore Platt [interposing]. This was a difficult point in the meetings, yes; we certainly wanted to get earlier delivery, but were unable to reach agreement.

Chairman Roth. Booz-Allen says, "The 84-month-construction period postulated by the study team was readily attainable with slack presence." So they said there was slack even in the 84 months.

Commodore Platt. I think their definition of "slack" is an engineering use, which means that it is not so tight that it is not achievable. I don't think it is——

Senator Cohen. In fact, it was confirmed by the fact the Navy negotiated a bonus if they came in earlier?

Commodore Platt. Yes, sir. The time we contracted for, which was 84 months, was less than that for the prior ship, the *Vincent*, which was completed in 86 months. The *Eisenhower* was completed in 91 months and the *Nimitz*, the first of the class, was completed in 90 months.

So even though we wanted it to be built earlier, we still contracted on a basis earlier than any other ship of that class was ever built.

Senator Levin. Those are all cost reimbursement contracts?

Commodore Platt. They started off that way and were later fixed priced during the last part of the contract, the one Senator Roth referred to, and he is very right, the CVN-70 was plagued by cost overruns. It was a hard point to use for negotiation of the schedule for these ships because the man-hours for the CVN-70 were increasing over our scheduled projections throughout the later part of construction period.

Chairman Roth. So you negotiated at 84 months.

Commodore Platt. Yes, sir.

Chairman Roth. Did you actually try to negotiate the shorter period, and what did the contractor say?

Commodore Platt. We tried to and were unable to and probably the contractor can best answer this question. For all their reasons, they were unwilling to accept the risk of shorter schedule on a fixed-price contract. They would have been willing, I assume, to accept an earlier timetable if we were willing to go to a cost-type contract.

Chairman ROTH. Didn't the contractor tell the Navy very early in the construction of CVN-71 that, in fact, he was going to be able to deliver the carrier early? Wasn't the contractor's own projected delivery date earlier than the date the Navy paid the contractor a $21 million incentive to for early delivery?

Commodore PLATT. There were a lot of meetings with the company and though the company at times said they would make every effort to build sooner and would try to schedule to building sooner, they weren't willing to enter into a contract with precision that would put the financial risk on the line that they would be able to build to that schedule.

Chairman ROTH. But there were built-in incentives to deliver earlier, weren't there, in the contract?

Commodore PLATT. The contract had an incentive sharing, not necessarily for early delivery, but to reduce costs and for each dollar that was saved, under target on the share line, the Government would get 70 percent of the cost reduced, and the contractor would be able to earn 30 percent of the reduced costs.

Chairman ROTH. Let me go back to my earlier question. Maybe you might want to answer, Mr. Ross. Didn't the contractor tell the Navy very early in the construction of the CVN-71 that he was going to be able to meet an earlier date?

Mr. ROSS. I have no specific reference to your point, Mr. Chairman. A contractor will try to force his management people and workers to go for an earlier delivery schedule to assure meeting the required one in the contract. Perhaps that is what you are referring to.

Senator COHEN. I think the question is, At what point in time did the Navy decide to negotiate a $21 million bonus for the contractor to come in ahead of schedule? Mr. Chairman, could I clarify a couple of issues on the contracts themselves?

Chairman ROTH. Yes.

Senator COHEN. If I could simplify it somewhat, Mr. Ross and Commodore Platt, under the fixed-price contract, which is sole source, you say you have a target price. Anything above that target price to the ceiling is a 50–50 share line; is that right?

Commodore PLATT. That is in our current contracts. It wasn't in this particular contract. On the CVN-71 share line, the Government would absorb 85 percent of the additional costs over target up to a ceiling.

Senator COHEN. Let's assume you have a target. If you come in above the target, you can bump up to the ceiling, right, and you have some sort of a sharing arrangement. If you come in below the target, you might have some sort of a bonus, is that right, under current contracts?

Commodore PLATT. Yes.

Senator COHEN. The question I have is: Is there an incentive to a contractor to go above the target, to bump up against the ceiling if, in fact, the Government is going to pick up the share of that increase between the target and the ceiling?

Commodore PLATT. That is a pretty provoking question.

Senator COHEN. The contractor is out to make a profit, and you are out to hold down the cost as much as possible. Is it not in the interest of the shipbuilder to go above the target price to the ceiling price if, in fact, the Government is going to share some part——

Commodore PLATT [interposing]. I would say for the most part, that is very so. There were two issues at the time which were impacting the shipbuilding segment of the country. The commercial sector of the shipbuilding and repair market had become severely depressed, and the Navy was becoming one of the only customers in this market arena; therefore, cost absorption had to be on people's minds.

Second, as we just got out of this very antagonistic and plaguing claims area where the contractors, in my opinion, were not very willing to enter into any contracts that would put them in a risk position where they would eventually have to come in with claims. They wanted to, at least, walk in to contracts with the type of target projections they felt comfortable could be made.

Senator COHEN. A second point Senator Roth was making concerns the length of the contracts. First, we want to explore in some detail as to whether or not there is a built-in incentive for shipbuilders to go above the target price. The cost sharing being 50–50, 70–30, with, in fact, a 10- to 14-percent profit built in.

To the extent the contractor can lengthen out that production period of time—he will. You want to hold the length down. The reason you had two studies done was to get some outside professional judgment as to what could be performed within what period of time.

What I think Senator Roth is saying is immediately after the Navy negotiated the contracts, you didn't really take into account what Booz-Allen and others said. But shortly after the contract is let, lo and behold, the contractor says he can come in sooner, and then the Navy negotiates a bonus provision for an accelerated delivery which admittedly saved $94 million.

The question to us as laymen becomes, Why didn't the Navy negotiate a shorter period because then you still would have had the cost savings, but no bonus involved. Do contractors stretch it out knowing that they can come in sooner and then negotiate a bonus incentive for which they ought not to be paid in the first place? The taxpayer is presumably gaining $94 million, the profit of which or the savings of which you indicated we transfer to the MX.

If we didn't negotiate that length of time in the first place, there wouldn't be these savings that wouldn't be transferred to another program. This raises a whole other question as to whether we are building in lengths in time, building in some of that excess period of time, so we can transfer the savings from one program over to another?

That is a long statement, but basically what I am trying to get at is how are price negotiations handled and why are they handled in that way? I apologize for interrupting, Mr. Chairman.

Chairman ROTH. That is all right.

Commodore PLATT. In your comment you talked about competition. I know of no better tool for dealing with industry than competition because dealing with any monopoly producer we can anticipate will try and—it may not necessarily be right—to produce schedules that are to their best advantage.

Chairman ROTH. Commodore, I agree with you, competition is the best answer to assuring the Government you get an adequate price. What concerns us here on the facts we have and what we are trying to probe and find out is what actually happened with this particular procurement.

You had a contractor that insisted on the longer term. For the reasons pointed out by Senator Cohen, that works in the interest of the contractor. In the longer period, No. 1, costs do escalate and, second, if the Navy wants a shorter term, that forms the basis for an additional incentive.

The thing that bothers me here is that the Navy went out and secured two outside consultants which said the ship could be produced in a shorter timeframe than proposed by the contractor. Now, the contractor, you are saying, was unwilling to agree with that. You talk about competition. As I understand, in the case of the nuclear aircraft carrier, there was only one private contractor in this country that could build it; is that correct?

Commodore PLATT. Yes, sir.

Chairman ROTH. What about Puget Sound? Could they build such a ship there?

Commodore PLATT. The naval shipyard in Puget Sound, though I am not an expert on this, probably could be brought around to a capacity to build a ship of that size. But the amount of capital investment and diversion of dollars to do that would be extremely large.

We did look at overhauls one time because in the overhaul of nuclear carriers, we were concerned also about keeping costs down, and I believe we looked at what the costs would be to bring that shipyard to a level of competence. I believe we found we would have to build more aircraft carriers than we have any right to expect, to justify the large capital investment to make that yard a viable producer of this type ship.

I think you are right in your comment, we were unable to get the contractor to agree to an earlier delivery. We attempted to, but we do feel the timetable we agreed to was earlier than he had ever built this type ship before. It was one of the timetables mentioned in the Booz-Allen study, and was in fact the midpoint range. Certainly, if we didn't want to fix price the contract, we could have gotten an earlier target schedule.

It was our desire to protect against after-the-fact claims and cost growth that drove us to try and pin down a price in the beginning. That was the first nuclear carrier we did this with, and I think, hopefully, we are better off for it.

Chairman ROTH. I don't want to go into this extensively, but it is my understanding there was a Navy study of Puget Sound that said with an expenditure of $12 million, and an additional work force of 5,000 people, the work could have been accomplished there. I only raise that because I understand that when it is truly a sole source, it is very difficult to negotiate if the contractor refuses to do otherwise. What I am saying is, it appears there may have been a viable alternative. Let's proceed.

Commodore PLATT. I really wouldn't want to delude you in any way. I don't think a ship, in my opinion, could be built there at a reasonable price; and also taking a major ship construction out of the private sector into the public sector would be something that we would discuss, I am sure, with every appropriate committee in the Congress. That would be a major step.

Chairman ROTH. Let's proceed. I want to go back to a question I raised earlier. It is my understanding that there was a progress report dated July 1981 from the contractor that specifically said it could deliver the ship in September 1986. That was prior to the negotiation of the amendment which provided an incentive for earlier delivery.

In other words, it is my understanding that the contractor had put the Navy on notice that the ship could be delivered faster, and after that notice was given, we entered into negotiations on the grounds that there was a $74 million saving by the earlier delivery, and that the contractor was paid $21 million as an incentive to make that earlier delivery; is that correct?

Commodore PLATT. If I may amplify—the contractor did notify us he believed that ship could be delivered earlier.

Chairman ROTH. So you were on notice of that?

Commodore PLATT. There was a marketing letter at the time the Navy was beginning to consider a CVN-72 and CVN-73, and many of the staffers, including some I think from your committee, were starting to look at how could we build the second and third ships, if the first ship wasn't delivered sooner.

The Navy was becoming more convinced, as time went on that Newport News could build a ship earlier. We were very worried about stretch-out, not necessarily by the management, but on the shop floor, if this ship was not expedited, because no other carriers had yet been authorized or directed by the Congress. I think sometimes workers on the shop floor tend to keep the last piece of work longer than we would like, thus, the incentive seemed to be a good way to go.

Chairman ROTH. Let me go back to the point I am making. The Navy, when it negotiated the contract, had been advised that the ship could be produced faster than agreed to by the contractor. So you gave the longer term. A few months later, the contractor itself notified you that, in fact, yes, it was possible to deliver the ship in September 1986.

Commodore PLATT. I could submit the letter, if I am thinking about the same one you are, for the record, but that letter came in with a list of contingencies and requests for things for the Navy to do. Some of them were very unacceptable to the Navy.

Chairman ROTH. What I am speaking about, these are progress reports and in the progress reports——

Commodore PLATT [interposing]. There is another letter I had in mind.

Chairman ROTH. These are progress reports in which the contractor notified the Navy that earlier delivery was possible. Subsequent to that, an amendment was negotiated which provided an incentive, an incentive of $21 million—not peanuts; a pretty significant sum—to meet an earlier delivery.

Let's assume those are the facts just for the moment. Is that good negotiating practice?

Commodore PLATT. I hope the facts are slightly different because I think the answer to your question that way is, if all things were set, he actually could build it earlier, was going to do that and there was no doubt he could build it at that period, then the incentive might be considered additional.

I just don't see it that way. It wasn't that nailed down at the time Newport News would build——

Chairman ROTH [interposing]. Well, nothing is ever nailed down in this kind of a game. We all understand that.

Commodore PLATT. First of all, he hasn't been paid anything yet. The ship has to be delivered, and it is many years away, and they get the $22 million after the delivery of the ship.

Chairman ROTH. You are not actually saying he hasn't been paid anything.

Commodore PLATT. He hasn't been paid any incentive. The incentive has provisions which are pretty restrictive. It excludes relief for acts of God, strikes, many of the things that are in the contract where he would get excusable delay, he doesn't get excusable delay in this incentive.

We felt, many people did, at the time, I think, the incentive provided additional encouragement over and above the terms of the basic contract. There would be no adjustments for him earning the incentive as a result of delays due to his failure, our failure or for most reasons that normally would——

Chairman ROTH [interposing]. I guess a thing that concerns me as a matter of procurement policy, there are situations where you have to depend on sole source. You are saying this is one? You don't need a viable alternative, Puget Sound——

Commodore PLATT [interposing]. I wouldn't recommend we build an aircraft carrier at our yard in Bremerton, WA.

Chairman ROTH. What I am trying to say is, you are in a situation where you have a sole source, and the contractor says he won't do it in a shorter timeframe and yet your advisers tell you it can be done. It seems to me you have an impossible situation. Then he comes in later and tells you he can do it in a shorter amount of time, but the Navy goes ahead and not only schedules an earlier date, but pays him $21 million for doing so, whenever that is.

It seems to me that is bad procurement policy because it puts the contractor in a no-loss position. It is in his interest to prolong, to extend the timeframe.

Commodore PLATT. I hope with time you will see that it may be not as bad as your people in the beginning have seen it. The desire for him to build that ship and do all the work necessary to bring it home on time are just not guaranteed because the contractor puts out a progress report saying attempt to build the ship earlier. It is very traditional in the shipbuilding industry, as in most manufacturing industries, to put out schedules to your work force, for them to try and beat the contract. We have been plagued by cost overruns——

Chairman ROTH [interposing]. The progress reports are the official reports by the contractor to the Navy; aren't they?

Commodore PLATT. Yes, but I think the report you are talking about says he is 17 months ahead of schedule when he was only 5 months into the contract. That was kind of hard to put together for us.

Chairman ROTH. I am going to ask you to go back and review that record and report to us exactly what it states.

Commodore PLATT. I will be pleased to, sir.

[The information referred to follows:]

PROGRESS REPORTS

By letter dated 24 June 1981, Newport News Shipbuilding forwarded copies of: (1) Revision A to their Principal Events Schedule for CVN-71, dated 19 June 1981, and (2) a revised Key Events network, dated 22 June 1981. In the forwarding letter, the company states: "As you are aware, we have been reviewing our schedules for the CVN-71, with the goal of improving the performance schedule. As a result of this review, we believe it is feasible to work to a September, 1986 delivery date. Enclosures (1) and (2) have been developed to reflect that schedule. . . . Your cooperation and support of these efforts to improve performance schedules will be appreciated. We request that you advise us immediately if the Government determines that it cannot support these efforts. In this regard, Requests for Price Proposals and Change Orders will be evaluated against the improved schedule."

The Newport News Shipbuilding letter was not a commitment to meet the earlier date, but was merely advice that the company had concluded that it was "feasible" to strive for an earlier date. The restrictions proposed in the final paragraph implied that the company intended to hold the Government responsible for supporting earlier dates and the company would price subsequent changes in accordance with the earlier schedule. Neither the revised schedule nor the forwarding letter obliged the company to adhere to the early schedule. By advising the Navy of the proposed pricing approach, the company may have been shifting some of the schedule risk to the Navy without providing contractual guarantees that the schedule revision would be maintained by the company.

At the time of the schedule revision, ten key events had been scheduled for completion. Of the ten events, five had been completed on time, four had been completed late (ranging from one day to six weeks after the scheduled date), and one event had not been completed. Nonetheless, the Navy welcomed the effort by the company to adjust schedules as indicated, and continued to seek means to improve the probability of attaining the early delivery in a manner which would share both the risks and rewards of achievement appropriately.

The incentive bonus provided a motivation for the company to continue to work to the early schedule and to weigh schedule adherence for CVN-71 construction positively if other conflicting considerations entered the shipbuilder's business picture during the remaining construction period.

Chairman ROTH. Let me ask you a further question. Did you have a question you wanted to ask?

Senator LEVIN. Are we going to have an opportunity to ask questions?

Chairman ROTH. We are going to go through a series of questions and then we will give you an opportunity. Senator Cohen?

Senator COHEN. As a practical matter, when you sole source a contract, the Navy is at a disadvantage.

Commodore PLATT. Yes, sir; compared to competition.

Senator COHEN. The contractor says I am not going to take that chance; we have acts of God, potential for strikes, I am not going to assume the risk. Navy has no option. You either build the ship there or not going to build it.

Commodore PLATT. That's correct, sir.

Senator COHEN. Even if the Navy has studies showing that Booz-Allen says he could do it 10 months earlier, it doesn't matter if the contractor won't do it, so the only hedge you have against that kind of abuse of monopoly power is competition. If you rule out Puget Sound, there is no competition.

Commodore PLATT. I think a study is very poor leverage compared to another competitor. That is the unfortunate thing one finds out in negotiations.

Senator COHEN. I want you to take that statement in context. I want to talk about the submarines a little bit later because they are a different situation than the aircraft carriers, because you do have a second competitor there that was ruled out.

Commodore PLATT. I could bear that out. At Newport News, the attitude on submarines, where there is competition, is certainly a different one at times in negotiations than their attitude on the sole-source building aircraft carriers.

For the record, at least one of the ideas that started us on the incentive was the Booz-Allen study. It does contain a recommendation for incentives. For the type of schedules we were seeking, they recommended a $55 million incentive. In fact, this was more than the one we actually did use. For other reasons, the incentive we used was less.

Chairman ROTH. Let me proceed with one more question in this area and then I want to get to the control modification for improved magazines. The Navy claimed that it could save $74 million by the early delivery of CVN-71. Let me ask you, was this savings basically based on the cost, foregone escalation or inflation? Was it a real savings or were they just foregoing the escalation that had been built into the contract?

Commodore PLATT. The savings that were used, I think, were principally the $74 million—the $74 million savings that had come from escalation—and they did not consider such savings as reduced Government people involved for longer periods of construction, the earlier assignment of the crews to the ship, and the substantial other costs the Government has to bear from extended periods of construction.

Chairman ROTH. As I understand it, about half of that was escalation of cost, $53 million out of $95 million was escalation. The escalation of cost is based upon the extended contract; in other words, the longer the contract, the more you have to escalate.

So it is in the contractor's interest to extend the timeframe of the contract because that escalates the cost. Then he comes in and tells you he is making savings. In fact, those savings to the extent they are based on escalation is just foregoing something that really doesn't result from his efficiency.

Commodore PLATT. Those are real savings to us in the long run because if the ship——

Chairman ROTH [interposing]. Am I not right that it is in the contractor's interest to extend the contract, to build in the escalation of cost and then come back and say that if he can do it shorter, you save. That is not a real substantial savings to the Navy, and we were able to get the timeframe——

Commodore PLATT [interposing]. That is how we would usually do it, sir. Unfortunately, as you know, sometimes we can be plagued by overruns. It was to prevent a plague of overruns, that has triggered a lot of our thinking.

Chairman Roth. Let me ask you, was any contract adjustment made for these so-called savings? Was any adjustment made for the fixed cost?

Commodore Platt. No adjustment to the contract outside the earning of the incentive if the ship was delivered early.

Chairman Roth. If there were to be fixed cost savings—let me ask Mr. Ross about that. Was any adjustment made in the contract to reflect the savings made in fixed cost?

Mr. Ross. No; we made no adjustment to target cost. The projection was $53 million reduced escalation cost and time-related costs, $42 million, should the ship be delivered 14 months earlier.

Chairman Roth. Why weren't the target costs adjusted for that $42 million? Or doesn't that result in double payment?

Commodore Platt. It would reduce the amount of incentive earned.

Chairman Roth. Mr. Ross?

Mr. Ross. I'm not sure——

Chairman Roth [interposing]. You are not sure why the adjustment wasn't made?

Mr. Ross. It wasn't a Government one-sided issue. It was with a contractor, negotiating an early delivery to the Government's benefit of saving cost.

Chairman Roth. But you are providing $21 million to the Navy based on the savings; isn't that correct?

Mr. Ross. Yes, sir; what I am trying to say, Mr. Chairman, is that negotiation and the subsequent modification is based on the end result of the contract through the whole production effort if, in fact, early delivery is achieved, 14 months early, the Government would not pay out, in our opinion, $94 million. We, therefore, set aside $21 million of that to go to the contractor as an incentive.

Your question is, did we reduce the target cost for the basic contract. The answer is no, we did not.

Chairman Roth. Again, if the contractor wasn't experiencing these costs, doesn't that result in extra payment to the contractor?

Mr. Ross. Incentive contract doesn't result in extra payment of cost because he only gets the cost he incurs. The final costs are audited.

Chairman Roth. Let me now turn, if I may, to the contract amendment for the improved magazines. The Navy agreed to pay the contractor over $105.8 million to improve the magazines for CVN's-71, 72, and 73. This improvement was added as a modification to the contract after construction began. Let me ask you this question, Commodore Platt. Why was the contractor given a profit of over 42 percent to build this improved magazine?

Commodore Platt. First of all, if it is acceptable to you, Mr. Chairman, I should first alert you before we start talking about this subject, part of it could be highly classified, so I will try and stay away from that and ask for your guidance if we get close to subjects on that nature.

The system we are talking about is a protection of certain parts of the ship against cruise missile and other surface missile threats, and it was decided after the ship was being built, to change the ship characteristics to provide additional protection because of vulnerabilities that were becoming known.

It involved substantial changes in how the ship would be constructed, including certain parts of the ship would have to be constructed outside any type of vision, either from the air or from the surface.

Again, the profit that we believe was paid on this was about 15 percent. I had my first chance, when I came in this morning to look at these charts on the wall. If you look up here on that one, on MOD 1, you talk about $105 million in costs.[1] Next to it there is an amount of about $13 million. So that would give you a profit for that work of around 12 percent. Our estimates were, in fact, providing around 15 percent profit and were unable to do any better.

You see one of the items we were talking about earlier, the profit numbers there include escalation while the target cost number there, a deescalated number, does not include any escalation. When all costs to be paid are included, that $105 million, less profit in there, you will see total profit is around the 15-percent range.

It has been a hard one for us to talk about today. When we set up this form of contract, we are always concerned with protecting against contractors gaining too much profit as a result of inflation and escalation, and we corrected that problem. It is complex to explain.

Chairman Roth. Let me go back again. The target cost, as I understand, on this particular modification, was $29.8 million. The target profit on the basic contract was 21.6 percent of target cost, but in the case of the modification, it was almost double, or 46.14 percent of target cost. Thus target profit amounted to $13.7 million. Why did it make sense to have 21.6 percent target profit on the basic contract and then go double on the modification?

Commodore Platt. These particular negotiations for the protection of the damage to the magazine and related sections of the ship, we did not have authority to proceed with those changes of the ship prior to award of the ship.

A period of time later, two things became known. One is, various options were being considered on how to provide the missile threat protection that we were seeking. Several of them required technical breakthroughs in manufacturing techniques not previously accomplished in the country, including the continuous welding of high strength materials. This particular type job had never been done before in shipbuilding——

Chairman Roth. NAVMAT recommended the target cost on this item should be roughly $28 million instead of $29 million. The profit, the target profit that they recommended was $5.8 million when, in fact, the Navy agreed to $13.7 million. That is more than twice as much profit. Why was this higher profit figure agreed to?

Commodore Platt. Prior to start of negotiations, usually on anything of that size—the negotiators in the departments develop opositions which are sent forward to a clearance to look at, for not only guidance, but also for clearance to proceed with the negotiations.

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[1] See p. 142.

Subsequent to that guidance, negotiations were completed and I assume that these early issues were fully resolved with the people who wrote the memo you referred to.

A thought should be brought out. The profit you are talking about up there of $13 million refers to the cost of $29 million and the escalation of $58 million. So one of the things that is involved some of the work to be done, is performed in later period of construction.

The planning work starts now, but much of the work involved had to probably be done in later periods, so there was more escalation involved with this particular work than the average work on the ship. To be very frank, we were unable to obtain any cost negotiation, concessions or profit negotiation concessions from the contractor.

Chairman **Roth**. The contractor just refused to consider any other figure; is that correct?

Commodore **Platt**. I believe that is so.

Chairman **Roth**. But, again, let me ask you this question: Why, when you go into one of these contracts, you know there are going to be some modifications along the road, no question—why don't you agree as part of the basic contract as to what the profit figure will be in any modification? What you are telling me——

Commodore **Platt** [interposing]. That is a good idea. Subsequently, that was done.

Chairman **Roth**. Are you doing that now?

Commodore **Platt**. Yes, sir. That is a "peachy" idea, and it has taken some time to get agreement from the contractor to do that, but that is being done.

Mr. Chairman, I really want to be careful I don't get outside the classified nature of the work here. The amount of metal and material impacted by this ship change, impacted the construction sequencing and the work to be done. We felt, if we did not fix price this modification at the start, we would open that contract up to late, after-the-fact claims, an exposure we did not want. Since we are dealing with a multibillion dollar contract, we did have the authority to direct them to proceed with the work and price it later, but we did not want to take the risk of increasing our exposure to claims or to cost growth as a result of a unilateral change. The contractor, as best I remember, was not interested in doing the work because it would disrupt his asserted logical sequence of building the ship. We wanted to build the ship more promptly and that was an impact on him and the schedule.

Chairman **Roth**. I understand no reduction was made in this contract or the contract for the subsequent aircraft carrier for the deletions. In other words, the old magazine was deleted and a new one was added. In no way did this contract or the contract for 72 or 73 reflect the deletion of the old requirement. Can you answer that, Mr. Ross?

Commodore **Platt**. We have no facts to show that is the case, sir. I will be glad to look at it.

Mr. **Ross**. When you are talking material analysis——

Chairman **Roth** [interposing]. You substitute a new requirement, a new magazine in lieu of the old. Now, obviously, the new magazine had a cost. The deletion of the old reduced cost from that point.

Mr. Ross. Mr. Chairman, I am not sure of that. This is a technical question because the changed work was improved damage protection, not necessarily replacement of the magazine, but other characteristics surrounding an existing magazine. I am not at liberty to discuss that.

Chairman Roth. Did we get——

Commodore Platt [interposing]. Subsequent to Mr. Ross' time and actually subsequent to mine, as I did mention in my statement, we did enter recently into negotiations with Newport News.

Chairman Roth. Recently.

Commodore Platt. Well, we have been for some time, but we recently concluded and got an adjustment of about $1 million for material on the magazine for the 71. We did check yesterday with the supervisor of shipbuilding office because we heard your staff was concerned the other day about this item, and we have not found that this particular problem of not getting appropriate credit for the magazines exists.

Let me say for sure, if there is a problem, we will go after it. I think this, as in all other cases, if there is money due us, this hearing strengthens our hand to get a fair refund.

Chairman Roth. Let me ask you, Mr. Ross, did you raise this question in negotiations with contractors?

Mr. Ross. I don't recall in this case.

Chairman Roth. Isn't it true that you sent a letter to the contractor—raising the issue—requesting such credit?

Mr. Ross. This was in 1981. I don't recall the specific details of that.

Chairman Roth. I ask you to review the file and advise the committee.

Commodore Platt. One thing you did bring up, Mr. Chairman, was an attempt by the negotiators to obtain a lower price, but we were unable to do that. The nature of the work was, the price was, such we could not proceed to contract on the basis of the contractor's proposal.

The contract modification did contain a provision that subsequent to the work or during the period of work any adjustments for metal or material used could be renegotiated and that in fact, negotiations did take place and the contract modification for, I think, about $950,000 in reductions was recently made and if you care, I would be very pleased to submit it for the record.

[The information referred to follows:]

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE
PAGE OF PAGES: 1 | 1

AMENDMENT/MODIFICATION NO.: P00009
3. EFFECTIVE DATE: BLK 19
4. REQUISITION/PURCHASE REQ. NO.: N00024-85-PR-25711
5. PROJECT NO. (If applicable): S-392E-25711

ISSUED BY CODE N00024
NAVAL SEA SYSTESM COMMAND
RTMENT OF THE NAVY
WASHINGTON, D.C. 20362
BUYER/SYMBOL: LT. A. Culbreath SEA 02211
PHONE: 202/692-3102/3/4

7. ADMINISTERED BY (If other than Item 6) CODE N 62793
SUPERVISOR OF SHIPBUILDING, CONVERSION
AND REPAIR, USN
NEWPORT NEWS, VA 23607

NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)
NEWPORT NEWS SHIPBUILDING AND DRYDOCK CO.
4101 Washington Avenue
Newport News, VA 23607

[illegible] SION COPY FILE

DE 43689
FACILITY CODE

(✓) 9A. AMENDMENT OF SOLICITATION NO.
9B. DATED (SEE ITEM 11)
10A. MODIFICATION OF CONTRACT/ORDER NO.: N00024-80-C-2023
10B. DATED (SEE ITEM 13): 9-30-80

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

fers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
By completing Items 8 and 15, and returning ______ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer mitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or ter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

ACCOUNTING AND APPROPRIATION DATA (If required)
SEE ATTACHMENT "A"

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

HIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
P00001 and mutual agreement of the parties.

D. OTHER (Specify type of modification and authority)

IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
ATTACHED

ept as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force effect.

NAME AND TITLE OF SIGNER (Type or print)
E. S. Williams
Director, Contract Administration

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
[redacted]

CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED: NOV 16 1984

UNITED STATES OF AMERICA
(Signature of Contracting Officer)

16C. DATE SIGNED: [redacted]

N 7540-01-152-8070
EVIOUS EDITION UNUSABLE

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

The purpose of this modification to contract N00024-80-2023 is, in accordance with P00001, to reflect a credit adjustment to the Government for steel material which is deleted or replaced by the Improved Damage Prevention System on CVN 71. Accordingly contract N00024-80-C-2023 is hereby modified as follows:

a. The total contract credit is:

Target Cost	($782,641)
Target Profit	($181,964)
Target Price	($964,605)
Ceiling Price	($993,954)

b. On page 2 of the Schedule, under SECTION B: SUPPLIES/SERVICES AND PRICES, Item 0001, delete "Target Cost, Target Profit, Target Price and Ceiling Price", as modified by modification P00001, and substitute the following in lieu thereof:

"Target Cost......................978,970,059
Target Profit....................218,945,036
Target Price...................1,197,915,095
Ceiling Price..................1,334,485,746

Except as modified herein, all terms and conditions of contract N00024-80-C-2023 remain in full force and effect.

Chairman ROTH. Yes. Senator Cohen?

Senator COHEN. Let me ask one question. We were pursuing earlier questions about length of time and how much would be paid for a particular contract, whether it would be 50-50 share, whatever. I would like to talk just for a moment in connection with what Senator Roth was asking you.

Is it your experience that, particularly in sole-source contracts, contractors anticipate changes by the Navy or by the Pentagon?

Commodore PLATT. I think they pray for them.

Senator COHEN. Pray for them, but as a matter of record, would it be fair to say that contractors anticipate that changes will be made?

Commodore PLATT. I think that is a fair assessment, and we have been trying very, very strongly—some of that coming from the Congress—to keep changes down. In fact, there have been very few changes to this particular ship and most of the changes that have been made we are discussing here today.

Senator COHEN. Particularly in the field, once you have a sole-source contract, you don't have any more competition. You have made a contract and you have negotiated the time and the price. If the contractor anticipates changes, is there any check that you have against the pricing of those changes?

Let's suppose the contract is let. Construction is started. Work force has been prepared. It is all geared up and now you have got some changes to make in the contract. What insulation do you have in the Navy against the pricing of those changes? There seems to be a dramatic increase in the prices, and I don't know what bargain leverage you have as the contracting officer or as the officer in charge.

Commodore PLATT. I think that gets to the nub of it. Your strongest leverage is at the time of initial award when a contractor wants the work, and if you don't award the work at hand, there is something actually being withheld, but when the work is well in process, the leverage really switches somewhat to the contractor and they know you may be compelled to make changes, particularly here where we are dealing with warships. It is very easy to send a cheap warship to sea. However, we want one that will survive in battle, be reliable and dependable; contractors know these characteristic changes are important, and we may be anxious to get them.

Leverage has impact on us. I do think this truth-in-negotiations legislation and the required certification of cost and data have really strengthened the Government's hand in dealing in these type issues, because certifying of costs submitted to the Government certainly makes contractor management aware of the data they are submitting.

Senator COHEN. But the fact is you have no alternative once you want the changes, to use as leverage to control those prices.

Commodore PLATT. Our alternatives are limited, but that does not mean we do not have some alternatives. It is also possible to bring pressures to bear outside the contract.

Senator COHEN. You have to threaten no more ships, I suppose, in the future, but you don't have much in the way of options.

Commodore PLATT. In essence, yes, sir.

Senator COHEN. What are the other options you have? Can't go to Puget Sound.

Commodore PLATT. I think perhaps the east coast would rise up in mutiny if we tried to build this ship out in Puget Sound—it certainly does not make good business sense.

Senator COHEN. I agree. What I am saying is, you can't say we are going to send it over here.

Commodore PLATT. First of all, you have to give the contractors credit. They are not unintelligent people. They understand our options and, in fact, at times, they may understand them better than we do. They spend time calculating the best strategy to handle things—considering things such as when is it good to be tough, when is it good to be easy, and that was my point. That is why I think this committee can help us in getting more competition in contracting. That is the strongest tool we have in dealing with contractors: The threat of competition and the potential of future work.

Senator COHEN. I am happy to hear you say that.

Commodore PLATT. They know there is no other place to build a carrier so it is hard to take that work away.

Senator COHEN. I think the chairman is ready to go on to the 688 class submarines. It is my understanding the Navy originally intended to compete the contract between Newport News and Electric Boat, the winner getting two ships and the loser getting one. Despite the fact Electric Boat came in as the low bidder, the Navy decided to go with Newport News on a sole-source contract for three ships.

In view of your statement that competition makes more sense, gives you better leverage and a better negotiating position, tell us how you justify that sole-source contract?

Commodore PLATT. The reason that that was done was really to set the stage for competition. Let me describe two events that were happening in the shipbuilding industry at the time.

One, we had not in the period of time of the 688's we are talking about, awarded a new submarine of that class to Newport News for about 4 years. They were experiencing significant breaks in production, loss in critical trade skills and were becoming not only a less competitive producer, but almost on the verge of becoming an inefficient producer. This was caused by the production gap.

On the other hand, we were having very major, and I think you may remember, problems with the construction of submarines up at Electric Boat. We had defective workmanship and defective material problems, which were of the greatest severity. The cost impacts of these on future construction now had to be considered by both shipbuilders. We had not awarded contracts to that company either, and I think there was a lot of public information on that at the time. We were experiencing, what I understand were not competitive bids from Electric Boat at that time but strategic bids, where they were underbidding to the extent of trying to obtain the position of becoming a monopoly in the submarine business.

I believe the decision was made because of the industrial base and to award three submarines to the Newport News company. This was to reduce the gap that came about because of the lack of awards for 4 years at that yard, and also to put them in the position where we could have viable competition in future years and to have them bring about not only the capital investment it takes to get into the modular construction of these submarines but also hiring and training of the right kind of work force.

What we have seen happen very recently is something we had hoped for but couldn't, with precision, predict. This year, Newport News competitively won submarines, the largest share of this year's submarine SSN-688 awards, and it is the first time they have been able, on a competitive price basis, to build themselves back up to the level where they are both viable and competitive enough to be a winner for this class submarine work.

I think we plan on getting higher levels of competition in the Navy. Our plan is not to get competition in any one year and end up with that particular company alone for the decade, but to sustain competition year after year. That is our goal, sir.

Senator COHEN. Could I just summarize the situation you found yourself in then? You had a situation where Newport News, because they were not getting contracts, was becoming a very inefficient, if not deficient, shipyard. You were also faced with a competitor who came in with a low bid, but you found through experience that EB was "low balling" it in order to get a monopoly on the shipbuilding contracts in the submarine field. You also knew from past experience that EB would be coming back in once it got the sole-source contract with much higher prices, cost overruns, cost growth, whatever; is that a fair statement?

Commodore PLATT. Yes, sir, that is my understanding.

Senator COHEN. Therefore, the Navy decided to give all three to Newport News to build them up to a level where they would be an efficient and productive yard, setting the standard for other potential competitors; right?

Commodore PLATT. Yes, sir.

Senator COHEN. Why is it that after you disregarded, for those reasons, the low bid by EB, there was an increase in Newport News' bid from the amount they bid on a competitive basis from the time you awarded the sole-source contract. The price reportedly went up from $528.4 million—that was their competitive bid—to $667.9 million under the sole-source solicitation, which was an increase of almost $130 million? What occurred between the time they bid on a competitive basis—they were high at that point over EB—to the time they were given a sole-source contract for three ships, that would justify an increase in price of $130 million?

Commodore PLATT. When we entered into the negotiations with Newport News, their production capability, as you mentioned, before had deteriorated because of the gap. They had submitted bids on a competitive basis. These bids were probably based in their minds, at least as we understood it at the time, on schedules better than probably they could accomplish but they desired to bid competitively.

Also, the dollars I referred to in the first several awards were based on 1980 index dollars. A large part of that price increase is explained by changing the escalation tables, I believe—I have to check with my people on the escalation base—when the contract was awarded, I believe, it was a different escalation base.

Senator COHEN. Let me be a little cynical about this. Let me assume that both EB and Newport News are in the business of getting contracts. Each one is coming in with a low-ball bid. Each one saying we are going to come in with this cost. We think we are coming in the lowest. Newport News doesn't know what EB is bidding. They are going to come in with as low a bid as they possibly can, perhaps anticipating as EB did that once they get the contract, the cost can go up—as it did, in fact, in this case. "Sorry, we didn't anticipate we would have these kinds of delays. Sorry, we didn't really anticipate the materials would not arrive on time," whatever the excuse might be. Isn't that standard operating practice in the shipbuilding business?

Commodore PLATT. That is a problem.

Senator COHEN. Isn't that it?

Commodore PLATT. That's a problem; yes, sir.

Chairman ROTH. Was that the case here?

Commodore PLATT. The case here was as we got into these negotiations—there is more to it than that, but there is that faction in it also.

Senator COHEN. Assuming that is the case, doesn't it make more sense to have two submarines go into one yard, and one go into the other so you have some hedge against that kind of cost growth?

Commodore PLATT. The work you have done, Senator Roth and Senator Cohen, on increasing competition is only going to do the Armed Forces, the Navy, and the country a lot of good. There is no better way of dealing with these procurements, if we can do it, than by having industry compete with each other.

Chairman ROTH. Let me go back here a minute.

Commodore PLATT. Yes, sir.

Chairman ROTH. I understand what you are saying. You went sole source to help Newport News become competitive: Is that right?

Commodore PLATT. Really to help us to have——

Chairman ROTH [interposing]. I understand that. Does the record reflect that that was the justification for the additional costs?

Commodore PLATT. I think the reason for going to Newport News was to strengthen the industrial base and to bring back competition. Additional costs, as time went on, were based on several things. One, I said, I think is additional escalation. I know the table up on the wall includes four submarines, including the SSN-750.[1]

Chairman ROTH. Let me point out this is a period of time where inflation was going down, not going up.

Commodore PLATT. Inflation kept going up as almost fast as it did before——

Chairman ROTH [interposing]. There were very significant reductions in that period of time. It is always very easy to say it is due to escalation over a long period of time. To me it is very strange, and I have to agree with Bill Cohen when he says you have a contractor's proposal. Maybe they were trying to buy in, but the fact is that you went sole source. Was there anybody at the negotiations for the actual contract? Who was at the negotiation of the ultimate contract? Were you, Mr. Ross?

Mr. Ross. No, sir; I was not.

Chairman ROTH. Who was there?

Commodore PLATT. I was one of the participants. Mr. Ross was involved in the aircraft carrier procurement. One thing I want to point out is that the SSN-750 submarine, which is one of the ones you were referring to, was changed to include vertical launch cruise missile capability. Our Tomahawks were included in that ship, which substantially changed the price for that ship as compared to earlier ships in that class, because that had changed the whole forward bow of the ship.

I think it would be helpful to consider the things that were going on at Newport News and Electric Boat at that time. We had very severe quality control problems and defective workmanship problems at the Electric Boat Co., and those problems had not then been resolved.

Senator COHEN. This was in 1981?

Commodore PLATT. Yes, that was the time work was being held up pending resolution. We were also seeking in this contract for the first time in the construction of submarines, claims-prevention clauses which we called "notification of changes," changes in the drawings and data clause, and also a revised Government insurance clause to close the loopholes that were potential problems with the claims that were beginning to come on the scene at the Groton yard.

The company considered the tighter terms and conditions were causing more risk, and we went through a period of 1 year where we could not reach agreement without even talking price on terms and conditions of contract. We could not bring the contractor to accept the anticlaims clauses we were trying to instill in all our shipbuilding contracts.

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[1] See p. 147.

Chairman ROTH. Let me go back to when the contract for the submarines were negotiated. Were there any contract personnel or pricing specialists attending that negotiation?

Commodore PLATT. There were many sessions, sir, which went on for over a year.

Chairman ROTH. Who negotiated the submarine contract?

Commodore PLATT. I think the contracting officer assigned to that was Mr. Beck. There were also the project manager, technical people and other experts.

Chairman ROTH. Did the contracting officer attend the negotiations between the Assistant Secretary of the Navy for shipbuilding and the vice president of Newport News?

Commodore PLATT. At that particular meeting, I don't think he was there.

Chairman ROTH. Were any contracting personnel there?

Commodore PLATT. I was at that meeting; the commander of the Naval Sea Systems Command, the head of procuring activity was also at that meeting; and perhaps members of the Secretary's office.

Chairman ROTH. Did you agree on a price there?

Commodore PLATT. A tentative price was achieved at that meeting—I think one thing——

Chairman ROTH [interposing]. Answer my question, please.

Commodore PLATT. Yes. In fact, all things weren't wrapped up at that meeting, and things had to be negotiated subsequent to that, such as option prices.

Chairman ROTH. The price itself was negotiated there?

Commodore PLATT. I don't think the price itself was finally negotiated at that meeting.

Chairman ROTH. You didn't discuss price at all?

Commodore PLATT. When we went into that meeting, there were several things that were open that were unable to be resolved prior to the meeting. The contractor had not accepted the Government insurance clause whichwould close the loophole against defective workmanship and defective material. He would not accept that clause. The contractor had refused to accept the clause for correction of nuclear defects, which was a clause he had always previously accepted. This was one which we thought would be an additional risk to the Navy and open up the contracts if we couldn't get that included. We were also unable to achieve the 50-50 share line we wanted to install in these type contracts.

Senator COHEN. If I could just clarify it——

Commodore PLATT [interposing]. We were at an impasse when we met in the Secretary's office.

Senator COHEN. I certainly don't want to oversimplify the problem. I think the Navy, I might say for the record, has done more to improve the way in which it procures its goods and services than any other branch of the service. I think Secretary Lehman has done an outstanding job.

What I am trying to do is go back and reconstruct what is the nature of the problem we had in 1981 when the administration first came in. I know Secretary Lehman, and I have worked with him on many other occasions, is dedicated to getting more competition.

You had a situation which was endemic, I think, to military procurement. This is not just Navy. It is every single branch of the service. We are talking about contractors who deliberately underestimate their costs, call it buy in. They come in with a low price to hopefully knock out their competition. Then, knowing there are going to be changes, they will have an opportunity to increase those prices.

That has been the situation for years. You had problems at EB. I recall the Secretary was very angry with what was going on up there. He wasn't about to let some contracts go in that direction until he was satisfied those changes were being made and, to his credit, he was really clamping down.

But then you had an award of all three ships going to one yard and effectively, the Navy loses its leverage at that particular point. This is reflected by the fact that Newport News' bid, which was higher than EB's, went up $130 million.

Then you negotiated in addition to that sole-source price from the competitive price, you went to a target price which was $17 million higher. So we have gone to a $147 million change from the time of the original competitive pricing.

I think it just highlights one of the problems that we have here. There is virtually no leverage you could have once one yard has all the ships. Is that not a fair statement?

Commodore Platt. That is better than I could say.

Senator Cohen. That is all I have, Mr. Chairman.

Chairman Roth. Thank you, Senator Cohen. I would just mention, the record shows that Mr. Sawyer, you, Captain Platt, and Vice Admiral Fowler represented the Navy at those critical negotiations. For NNS, Mr. Campbell, president; Mr. Moore, counsel; Mr. Silva, chief estimator were present.

As far as I can tell, there were no contracting personnel there. At that meeting, a target price of $675 million was agreed upon. Is this a typical way of negotiating contracts?

Commodore Platt. That wasn't typical because it was a very unusual situation at the time. We were at an impasse and unable to get into contract with Newport News, and I believe that is the reason the meeting was at the Secretarial level because we were unable to get the company's agreement to the insurance provisions and the correction of nuclear defects clause. This nuclear defects clause would require the contractor to make corrections on a non-claims or other liability exposure basis. Problems with reactor plant and reactor area equipment, which could open us up to claims which we were trying to eliminate.

One thing is—and I don't know if it has been pointed out—but at that meeting, although we did tentatively change the target costs, the ceiling price of the contract did not change. The Government's final exposure to total cost was not changed as a result of the discussions at that meeting. The final contract that was entered into had 130 percent ceiling as opposed to 135 percent ceiling, which was the one that was being previously considered. So the ceiling price remained the same and a 50-50 high risk share line was added.

Also, as you pointed out earlier, dealing with monopoly producers is not easy, and they were reluctant to agree to the concessions we wanted.

Chairman Roth. At that meeting, you did stretch out and did give them more money than they originally asked for.

Commodore Platt. I don't think that is a fair way to say it. They never agreed to build the ship on the terms we asked them to. They were not conforming and wouldn't agree to the clauses we sought. They offered to build it under a kind of contract we didn't want.

One thing that came up at the meeting, which was very upsetting to people at the time, is Newport News had never built this class submarine in less than, I think, 64 months, which is the period I think we finally contracted at. The period of time they submitted a competitive bid on was based on 55 months and they indicated they could not now achieve this.

Chairman Roth. To the observer it seems very strange——

Commodore Platt [interposing]. But——

Chairman Roth [interposing]. Let me finish. On a competitive basis, they had a shorter delivery period, plus a lower price, and yet when it came to negotiating, both were stretched, if I understand the figures.

The original target price was $657 million—the contractor's proposal. And there they were accepting, if I understand, the standard clauses, weren't they?

Commodore Platt. No, sir; there were two clauses they wouldn't accept which were very crucial to us. One is correction of nuclear defects and the other, to the best of my memory, was the Government insurance clause. We had a clause he previously agreed to, but as the result of the defective workmanship claims that were coming out of Electric Boat, we insisted we wouldn't get into a new contract either at Newport News or any other shipbuilder without closing the loopholes in the Government insurance clause that General Dynamics alleged existed.

Chairman Roth. Those two clauses——

Commodore Platt [interposing]. We also went to a 50-50 share line which substantially increased the contractor's risk. The earlier competitive proposal we had was on a lower sharing agreement. Under the earlier proposal the Government would pick up more of the overruns.

Chairman Roth. Let me ask you this: Were those two clauses reason for drawing out the delivery date 9 months?

Commodore Platt. Those three clauses were among the reasons.

Chairman Roth. Again, I am asking you, you extended the contract 9 months, delivery on each of those——

Commodore Platt [interposing]. During the meeting, it was very upsetting to us, he said he couldn't meet the delivery schedule he previously bid to. He indicated they never built to that shorter schedule, couldn't meet it, and if he had to agree to a tighter contract, he must have the extended time to build.

Senator Cohen. Did you ask him why he bid it?

Commodore Platt. That came up and——

Senator **Cohen** [interposing]. Wouldn't that be a relevant question?

Commodore **Platt**. Yes, that is relevant. It did come up, but they were reluctant—that was a long time ago—they wouldn't agree to the shorter schedule given the Government's new terms and conditions.

Chairman **Roth**. You are saying in this case, they were trying to buy in, is that correct, in their original proposal; they were trying to buy in at a low price?

Commodore **Platt**. I think their original proposal was competitively based—yes, in that sense, I think buy in is the right term, Senator.

Chairman **Roth**. You also testified in the case of the aircraft carriers that they took a very long period of time and refused to agree to any shorter period of time as recommended by your advisory opinions.

Commodore **Platt**. Yes.

Chairman **Roth**. Let me ask you this: You said one of the reasons you wanted them to build the subs was to make them competitive in this area. Do you think they are going to be more cooperative with you in the future?

Commodore **Platt**. In fact they have been. At that time, we not only wanted to make them more competitive, but we had such severe problems at the other shipyard that we wanted to bring about corrections in the whole submarine construction arena. We thought having competition between the two major builders would help improve the quality, enhance production, and lower prices at both places. Losing either contractor would put us facing a monopoly position, whether it was Newport News or Electric Boat.

I think there were indications to the Navy to think it was the position of General Dynamics at that time to become the sole producers of new class submarines in the Nation.

Chairman **Roth**. Are you familiar with a Mr. Konouck?

Commodore **Platt**. Yes, sir; I believe he works for Newport News.

Chairman **Roth**. Yes; that is correct. There is a Navy document where it says:

> He made a tactical error. He stated that regardless of the logic or illogic of their position, the company could keep the situation so confused that the Navy would be unable to take any effective action against them. We have known for some time that a part of the Newport News' strategy is to sow confusion and disorder whenever possible, but this is the first time I have ever heard a representative of the company admit such a strategy.

This comes from a Navy document.

Commodore **Platt**. When did he say that, sir?

Chairman **Roth**. It is a memorandum for the file dated November 23, 1976 for CVN-70. He also negotiated CVN-70.

Commodore **Platt**. That was 1976. Though that is 5 years before the contract we are talking about, I think the strategy probably did not change.

Chairman **Roth**. Has not probably changed?

Commodore **Platt**. I would think probably that memo helps confuse us as much——

Senator COHEN [interposing]. If you can't convince them, confuse them.

Commodore PLATT. The memo is 1976. That apparently was their strategy then, and I don't know if it has changed since then, and I don't know if it would be different when we try to go back and do more work with them. I don't think that memo refers to these negotiations.

Senator COHEN. That is not confined to Newport News, is it?

Commodore PLATT. I think the way it is stated, it certainly implies the art of negotiating is to somehow keep the other person off balance. They happen to be pretty effective at it.

Chairman ROTH. Let me refer to a memorandum which indicates that the scheduling problems on the aircraft carriers and subs could be spilling over to other Navy programs. The memo, dated December 1983, says that the Navy program to overhaul our nuclear missile carrying submarines is in serious trouble apparently because of the serious scheduling problems at Newport News. The memo cites serious quality problems which have gone on for several years and states that, as a result, "Long term national strategic commitments are at stake." Have you seen this memorandum?

Commodore PLATT. I think you are referring to a naval message which your committee gave to our office of legislative affairs last night.

Chairman ROTH. That is correct.

Commodore PLATT. Yes, sir; I am familiar with it now.

Chairman ROTH. Would you care to comment on the matter?

Commodore PLATT. It has been the Navy's position that Newport News has done less-than-desirable work strictly from a schedule stand point in nuclear submarine overhauls and that has been one we have been placing a lot of attention over the past 2 years.

Back at the time of that message, a major review was done of what work could be moved to naval shipyards and other places if that was necessary to improve the situation. It was not a cost problem because Newport News was the lowest cost producer of submarine refuelings and overhauls, but as I understand it, they took longer than anyone else to do it, which is very unusual.

Normally, faster is cheaper, but with submarine overhauls, it is hard to get many people into a submarine at one time, and so the methodology in going about the work has cost impact.

The ship I was referring to was the submarine *Tecumseh*. That is actually at Newport News now. We have since that time completed our first refueling of a submarine, in recent time, outside of the Newport News yard and it was done at the Charleston Naval Shipyard; that has been accomplished in a shorter time; in fact, substantially improved time over what Newport News did. We should keep in mind this is very complex and difficult work Newport News has been given to accomplish. It is a hard technical job.

I think probably Newport News can answer those questions better than I; they have made some management changes that are pretty substantial in that area. The man who heads the submarine overhaul area has since been changed and other productivity improvements are being made. Work for post shakedown availability of submarines was principally always done at Newport News. Some is now being done at Electric Boat, I understand, which will level out Newport News' workload.

I know this is an ongoing area of concern of most of the people in the leadership of our submarine overhaul programs. I don't think we should get off Newport News' back, if we don't get the improvements we seek. I think more actions will have to be taken, if the problem has not been corrected.

Chairman ROTH. I think this is a very, very serious situation, as outlined by you. I am going to ask the Department of Defense IG to investigate the matter and determine what their recommendations would be.

Let me point out, my staff also has been informed that these schedule delays are beginning to affect much of the work at Newport News, not just in SSBN's. Do you know why this is happening? Do we have the schedules for the ships under construction? Are they beginning to interfere with each other, causing labor to be shifted rapidly from ship to ship?

Commodore PLATT. First, the submarine refueling and overhaul work and construction work are vastly different. Building a ship from start is quite a bit different than taking an existing ship and going in and refurbishing the reactor plant. The submarine problem you brought up was a real one, and any look that brings improvements is certainly going to benefit the Navy, and I want to assure you we looked at it. I don't think this submarine refueling is in any way related to the carrier. Obviously, the carrier, we believe, is on track, and if they are not on schedule, they will not earn the $21 million that people are worried about. And maybe it is the incentive that will help bring that ship in time, which is what we seek.

Chairman ROTH. Are there productivity problems there?

Commodore PLATT. I am not expert enough to talk to current problems—I am not familiar with current contracts you are talking about. We could bring people to talk to your staff later if that would be helpful and provide for the record the current production capabilities at Newport News.

I do know the carriers are on schedule, and we are very pleased with that. The submarine overhaul work has been a problem that has nagged, and we were not very happy about that at all.

Chairman ROTH. I am going to ask my staff to get in contact so we can follow through on that.

Let me ask you some other questions with respect to the chart that is over there.[1] On that chart is listed defective pricing on CVN-70, $9.5 million; CVN-71, $11.8 million; CVN's 72 and 73, $3 million—roughly $24 million, $25 million total. These are findings that show that the pricing of Newport News has not met the requirements of the contract. Has anything been done to recover those costs?

Commodore PLATT. The company has been contacted on each of these. Because there is some sequential work on the relationship of the work on the 71 versus the 72, discussions have been ongoing on the first item and our office of supervisor of shipbuilding hopes for a resolution in the next 30 to 60 days.

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[1] See p. 141.

To be very frank, I believe the company has not agreed to any concessions at this point. Though we are hopeful concessions will be brought about. If they are not, I understand we plan to enter into necessary contracting officer decisions to obtain any refunds that are due. We have looked, and portions of these, we believe, have merit. I do think your bringing this up can only strengthen our hand to do what needs to be done to resolve these matters. It has not been easy to get these settled.

Chairman Roth. I am not trying to go through all today——

Commodore Platt [interposing]. I have never seen that.

Chairman Roth. I am going to ask you to review those and comment on each one. For example, you have residual material on CVN-71, $1.3 million. I understand nothing has been done to recoup that. The same is true on CVN-70. There it is $2.5 million. What I would appreciate, Commodore Platt, is that you review these with your experts and advise us what action in each of these cases are being taken or an explanation of why nothing has been done.

Commodore Platt. I don't think it is fair to say nothing has been done. I think it is fair to say the company has not agreed to any concessions as a result of us——

Chairman Roth [interposing]. That takes me back to that paragraph, nothing is ever solved; it just remains in dispute and confusion.

Commodore Platt. It is difficult to obtain the concessions that we seek. I did say, and I think we are very sincere about that, if money is due us, we will do the right thing and if necessary, we will enter into contracting officer decisions which could involve disputes. But the company has not agreed to any of those suspected findings on the part of DCAA. We do believe some of them have merit and are actively pursuing them.

Chairman Roth. It seems to me the longer you delay and the longer it is in dispute, it is only precedent for not reaching agreement in the future.

Commodore Platt. That is true. There has been various elements in the Department of Defense and Navy who emphasize getting and trying to bring suspected overpricing situations to a head more quickly and that really does need to be done, and we are doing that now.

Chairman Roth. Commodore Platt, Mr. Ross, this is a matter that we are going to continue to be investigating. All we are interested in is helping you be more cost effective. One of the things that does concern me is, I think there has to be the attitude, as I said earlier, on the part of the contractor, to be responsible. This is not a market situation where, as I said earlier, let the buyer beware. I think the contractor is entitled to be reimbursed for all his costs and a fair profit. But in these kind of matters, which are so extraordinarily complex, I think it is time we put the contractors on notice that they are also taxpayers and they have a responsibility to cooperate and work with the Government to keep down the cost.

The thing that bothers me the most is a point that Bill Cohen raised earlier. If we can't show that military procurement is cost effective, you are going to lose the support of the public. There has already been serious questions raised in the case of spare parts. I want to compliment you in the sense you have been willing to admit there were some problems. Too often people come here and say no, everything is all right; we have already taken care of it, or we are looking into it, so I applaud you for being willing to admit that there are problems here.

I urge and ask you to cooperate with my staff to see what can be done on this. Again, it seems to me we have got to put the Government in a position where it is not dependent on the good will of the contractor. Once you enter into a complex contract, such as on an aircraft carrier, it seems to me the terms of that contract ought to spell out the profit role on changes or modifications so you are not in a position of having to accept something that looks to me like 46 percent profit.

Senator COHEN. I would like to add one point, Mr. Chairman, with respect to defective pricing that would give the Navy some leverage. Last year, Senator Roth and I sponsored legislation dealing in the field of fraud in which it was suggested that contractors be held civilly responsible if they either knew or reasonably should have known the costs they were submitting were, in fact, false.

Due to a great deal of lobbying, that legislation never passed. But I am going to reassure the people here in the audience, I intend to sponsor that legislation again. I think it has reached the position that some of the practices being conducted by yards, and it is not confined to any one yard we are talking about here today, but I would say throughout the military procurement system, that their policy is one of confusing the people who have to pass judgment on cost data. When cost data are either inaccurate or indeed in some cases false, and the contractor reasonably should have known the data to be false, there ought to be some liability against those people who are cheating the Government.

So I intend to renew that effort, and I am glad I have this opportunity to convey that message. So the next time we consider this civil fraud bill, we are going to be able to point to this hearing as an example of why we need this remedy. You are shaking your head in agreement, Commodore?

Commodore PLATT. Mr. Cohen, I need your staff to advise me if I can comment on this, because we are talking about legislation, and I don't want to lobby for it. Anything you can do to strengthen our hand can be of help. We want to bring in the best warships this country can build and build them in at a good price. We don't want to build warships that are not worthy to go to sea.

Anything we can do to help control costs, increase competition, and eliminate defective pricing which is so hard to resolve after the fact; actions that strengthen our hand will help because no one likes to return money they think they earned, and if they haven't earned it, they simply should give it back; the Nation deserves no less.

Perhaps you can help our hand in those negotiations and the people who will be doing them.

Chairman ROTH. Commodore, we want to work with you on those goals. It is a complex matter. I think most of us get confused up here because of the complexity, but we have to make progress. Thank you very much.

The committee will be in recess.

[Whereupon, at 11:58 a.m., the committee recessed to reconvene at the call of the Chair.]

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

STATEMENT OF JOHN LANDICHO, SENIOR ASSOCIATE DIRECTOR, NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION

Mr. Chairman and Members of the Committee: I am pleased to be here today to respond to your request to discuss GAO's recent reviews of the Navy's projected cost and schedule savings in the acquisition of nuclear aircraft carriers.

As you know, the Navy has three nuclear carriers under contract with the Newport News Shipbuilding and Dry Dock Company. The CVN-71, U.S.S. Theodore Roosevelt, was launched in October 1984, and is scheduled for operational deployment in 1986. The CVN-72, U.S.S. Abraham Lincoln, is scheduled to join the fleet in 1989, and the CVN-73, U.S.S. George Washington, in 1991.

In fiscal year 1983, the Navy requested $6.8 billion to fully fund two nuclear carriers—the CVN-72 and CVN-73—instead of incrementally funding one in fiscal year 1984 and one in fiscal year 1986. According to the Navy, fully funding both carriers in fiscal year 1983 would result in a delivery date for each that would be 2 years earlier and would achieve a $754 million cost avoidance if the multiship approach was authorized and appropriated, rather than the single ship approach. The multiship approach was approved by the Congress in December 1982.

In February 1982, the Chairmen of the Senate Armed Services Committee and House Appropriations Subcommittee on Defense requested GAO to review the Navy's proposal to fully fund two Nimitz-class nuclear aircraft carriers in fiscal year 1983.

We reported in March 1982 that the Navy's estimated savings were centered around certain assumptions regarding escalation avoidance, economic order quantities, reductions in nonrecurring costs, and improved shipyard productivity. We found the Navy's estimate of $754 million in cost avoidance to be achievable based on our analysis of its cost estimating assumptions and techniques.

We noted, however, that these savings could be negated by interest costs in the outyears when expenditures would be made. The future outlay streams for the single ship approach and the multiship approach are different.

We reported that the present value of the two funding approaches using a discount rate of 10 percent as prescribed by the Department of Defense showed that the multiship alternative was about 2 percent less costly. However, using a 13.97 percent discount rate based on the 12-year Treasury bond yield, the approximate period of projected outlays, our analysis showed that the cost advantage of the multiship approach was almost negated.

I should point out that the Navy emphasized that the projected cost savings were a secondary consideration and that the military need for early delivery of the carriers was the primary consideration behind the multiship procurement approach.

We concluded that the improved delivery schedule of 22 months was achievable under the assumptions made by the Navy if certain events occurred as planned. These events were (1) the provision of sufficient fiscal year 1982 Research, Development, Test and Evaluation funds to Newport News Shipbuilding and Dry Dock Company during the Spring of 1982 for planning purposes, (2) the award of a long-lead contract in October 1982, and (3) having fiscal year 1983 funds appropriated in time to award the basic ship construction contract by January 1983.

Because of the limited scope of our review, we did not verify the need for early delivery of the carriers. Nor did we examine issues related to the early delivery of the two carriers, such as whether carrier aircraft and battle group escort ships were being procured on an accelerated schedule to coincide with the early delivery of the carriers, and whether trained crews would be available to operate the carriers, aircraft, and escort ships.

Two related reports were issued subsequent to the March 1982 report:

In March 1983, we issued a report in response to a request by the Chairman of the Subcommittee on Defense, Senate Appropriations Committee. We found that the key events critical to the achievement of earlier delivery and cost avoidance had occurred as planned and that events and assumptions affecting anticipated savings had not changed.

We also reported that the Navy was requesting $87.8 million in its fiscal year 1984 budget for escalation costs on the CVN-72 and CVN-73. This was in addition to the amount provided for in the fiscal year 1983 budget and was based on higher inflation indices. We noted that this escalation increase reflected the extreme difficulty which exists in predicting future costs over a long period of time—in this case almost ten years. Since 41 percent of the projected $754 million savings was due to reduced escalation resulting from earlier procurement, we pointed out that this request and future requests could affect the upward or downward movement of the projected cost savings.

In July 1983, we issued a report in response to an April 1983 request by the Chairman of the Subcommittee on Defense, House Appropriations Committee. We reported that the Navy's estimated savings of $74 million on the CVN-71 appeared to be reasonable if the incentive delivery date of December 31, 1986, was met. At that time, the CVN-71 was 53 percent complete and on schedule for delivery.

Our original and subsequent reviews were performed under tight time constraints which addressed specific questions of the Committees. In conducting our reviews, we obtained and analyzed data related to the preparation of cost estimates and interviewed personnel in the Office of the Secretary of Defense, the Navy, the Congressional Budget Office, and the Office of Management and Budget. In the March 1982 and 1983 reviews, we interviewed officials at the Newport News Shipbuilding and Dry Dock Company.

We did not verify the accuracy of the projected cost avoidance by performing a detailed pricing audit of the estimates. Rather, as requested by the Committees, we reviewed the reasonableness of the underlying assumptions on which the cost and schedule savings were based, and pointed out some uncertainties in the estimated cost savings.

OTHER WORK

The Committee staff asked us to discuss some other work our office has currently underway even though it does not deal directly with the acquisition of nuclear aircraft carriers. We have two draft reports dealing with contracts awarded by the Department of Energy for naval nuclear reactors. These reports deal with the potential overpricing of as much as $5 million under two contracts. Copies of the drafts have been provided to the Committee. We have not yet received comments on these draft reports from the Department of Energy or the contractor.

In addition, we have a survey underway regarding aircraft carrier crossdecking activities. Crossdecking is when material is transferred from an aircraft carrier returning to port to an aircraft carrier beginning deployment in order to facilitate the latter's operational readiness. The objectives of this effort are to identify the types and magnitude of material being crossdecked, the causes for crossdecked items being in short supply, actions being taken by the Navy to alleviate shortages, and to determine whether additional actions are needed.

This concludes my statement Mr. Chairman and I would be happy to respond to any questions you may have.

CHARTS DISPLAYED AT HEARING

PRELIMINARY TABLE OF UNNECESSARY COSTS -- NAVY SHIPBUILDING

	$ Millions $
Stretch-out of four 688-class Submarines	111.7
Cost of Standard Magazine CVN-71 (est.)	50.0 *
Exorbitant Profit on Mod 1	6.9
Cost of Standard Magazine CVN-72 (est.)	50.0 *
Cost of Standard Magazine CVN-73 (est.)	50.0 *
Slack in CVN-71 Schedule	95.0
Unnecessary Incentive	21.1
Double Payment Because Target Cost Not Adjusted for Savings (est.)	12.6
Defective Pricing on CVN-70	9.5
Defective Pricing on CVN-71	11.8
Defective Pricing on CVN-72 & 73	3.0
Overpricing of Nuclear Reactors	5.0
Residual Material, CVN-71, Given to Contractor	1.3
Residual Material, CVN-70, Given to Contractor	2.5
Inflated Steel Prices Negotiated	2.8
Accelerated Contractor Purchases (CVN-71)	6.9
Accelerated Contractor Purchases (CVN-72 & 73)	15.0
Additional Profit on Submarines per DOD-IG Report	7.0
Front Loading Labor: CVN-71	61.6
Front Loading Labor: CVN-72 & 73	130.0
Additional Profit on Carriers due to Selective Uses of Escalation/Deescalation Indices (est.)	50.0
Excessive Cost, Poor Quality and Schedule Slippages on SSBN Overhauls	UNK

*NAVMAT's Analysis also indicated that the improved magazine should have been priced at $5 7 million vice $105.8 million.

MOD. 1

MARCH 4, 1981

	$ MILLIONS $
I. EXTEND DELIVERY DATE 5 MONTHS	
II. TARGET COST	29.8
TARGET PROFIT (46.1%)	13.7
TARGET PRICE	43.5
ESCALATION	58.0
COST OF MONEY	4.3
TOTAL	105.8

U.S.N. CONSULTANT'S OPINIONS OF CONTRACTORS PROPOSED SCHEDULE FOR CVN-71

BOOZ-ALLEN & HAMILTON, INC. ($57,000)

"...unduly long, with excessive amounts of slack...(will) result in excessive costs..."

INDUSTRIAL CONSULTANTS, INC. ($29,000)

"...October 1986 is feasible...(and) There are no manpower or facilities problems impacting delivery of (CVN-71) in October 1986."

	MONTHS FROM					
CVN	CONTRACT AWARD TO KEEL	KEEL TO LAUNCH	CONTRACT AWARD TO LAUNCH	LAUNCH TO DELIVERY	KEEL TO DELIVERY	CONTRACT AWARD TO DELIVERY
68	15	47	62	35	82	97
69	8	62	70	23	85	93
70	18 41	53 162	71 203	25	78	96
71	28	36	64	23	59	87
72	22	34	56	25	59	81
73	44 94	36 106	80 200	25	61	105
	PURCHASE MATERIALS & EQUIPMENT	FABRICATE & ASSEMBLE		STABILIZED AFTER 1ST SHIP; INSTALL EQUIPMENT		
	53-MONTH LOSS	56-MONTH GAIN	NET GAIN 3 MONTHS			

MOD. 4

December 3, 1981 -- Not Audited by Anyone

PROVIDES $21.2 MILLION (PRO-RATED ON A DAILY BASIS) TO THE CONTRACTOR TO DELIVER CVN-71 14 MONTHS EARLIER THAN NEW DATE SET BY MOD. 1

COST TO STRETCH-OUT 4 NUCLEAR-POWERED ATTACK SUBMARINES, IN $ MILLIONS $

ELEMENT	A. CONTRACTOR PROPOSED	B. U.S.N. NEGOTIATOR	C. ASST See Nav Shpbldg & Log	Difference C. less B.
TARGET COST	752.8	700.4	761.5	61.1
TARGET PROFIT	123.8	111.4	139.5	28.1
TARGET PRICE	876.6	811.8	901.0	89.2
ESCALATION	221.3	204.9	227.4	22.5
TOTAL	1,097.9	1,016.7	1,128.4	111.7

STRETCHED DELIVERY DATES
NUCLEAR-POWERED ATTACK SUBMARINES

	MONTHS INCREASED		
NAVY HULL NO.	From Competitive to Sole Source	Negot. BY ASN-S&L	Total Stretch-Out
721	+3	+9	+12
722	+3	+9	+12
723	+3	+9	+12
750	+3	+9	+12
	12	36	48